

60 WAYS TO ADD INSTANT STYLE—Sedan Wheel Guide

RADIO CONTROL

47380

# car action

THE WORLD'S BEST-SELLING RC CAR MAGAZINE

**BEST  
RC STUFF**

**17** of YOUR  
top picks  
page 112

**FIRST  
LOOK**

Team  
Losi  
Triple-XS

Make  
your engine  
last longer page 190

**HPI RS4 Pro 3** First drive  
feedback

**MORE  
SPEED!**

**HOW TO  
INSTALL A  
2-SPEED  
TRANNNY**



JULY 2001

**PLUS: KYOSHO INFERNO MP 7.5 • OFNA MBX-R2 • TAMIYA TGR**

USA \$4.95  
Canada \$5.95

www.rcaction.com



0 09128 47380 2





# contents

Volume 16 ■ Number 7 ■ July 2001

## features



112



166



204

### 112 Readers' Choice Awards

**You called it!**

by the staff of RC Car Action

### 122 1st Look: Team Losi XXX-S

**Drop your weapons!**

by George M. Gonzalez

### 138 Florida Winterchamps

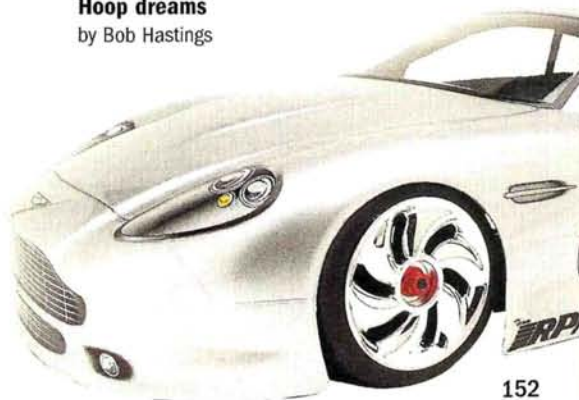
**Team Losi strikes gold**

by Greg Vogel

### 152 Touring Car Wheel Guide

**Hoop dreams**

by Bob Hastings



152

### 166 How To Install a 2-speed tranny

**2-speeds in 12 steps**

by Greg Vogel

## DEPARTMENTS

- 22 Starting Line
- 26 Readers Write
- 46 Readers' Rides
- 212 RCStore.com
- 225 Track Directory
- 232 Index of advertisers

## COLUMNS

- 35 **Inside Scoop**  
by Chris Chianelli
- 54 **Pit Tips**  
Illustrations by David Baker
- 62 **Troubleshooting**  
by George M. Gonzalez
- 129 **Racer News**  
by Greg Vogel & Derek Buono
- 176 **Ultimate**  
Associated TC3  
by Derek Buono
- 190 **Piston Power**  
Bring home the chrome  
by Chris Chianelli
- 196 **4x4**  
Aftermarket Maxx attack!  
by Kevin Hetmanski
- 233 **Chris's Back Lot**  
From the other side of  
the RC world  
by Chris Chianelli

**ON THE COVER:** Comin' at ya: HPI's hot-from-the-mold RS4 Pro 3, wearing an HPI Mercedes DTM body (photo by Peter Hall). Below, left and right: the Kyosho Inferno MP 7.5 and OFNA Ultra MBX-R2 tear up some topsoil (photos by Walter Sidas).

## track tests



70

### Kyosho Inferno MP 7.5

It won the Worlds.  
Will it win for you?  
by George M. Gonzalez



80

### HPI RS4 Pro 3

HPI's new sedan breaks  
all the rules  
by Peter Vieira



92

### Tamiya TGR

Big T gets serious about  
super touring  
by George M. Gonzalez



102

### OFNA Ultra MBX-R2

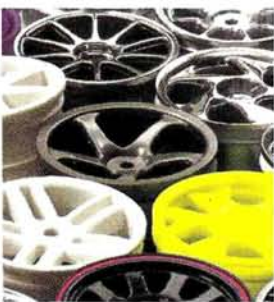
Testing OFNA's  
"middle-high-end" buggy  
by Peter Vieira



## You have spoken!

The results are in, the ballots have been counted, and now you can see who takes home the hardware in the 2001 Readers' Choice Awards (page 112, if you just can't wait). One thing that struck me about the results was continuity; I won't spoil any surprises as to who won what, but I will say that many of last year's winners are back as your number-one picks. I think that says something about the strength of the hobby and its technological maturity; the trial-and-error period of technological growth that characterized the hobby's early days is long over. The RC transmitters, speed controls, servos and other high-tech products we use day in and day out become more advanced every year, yet they are more reliable and generally easier to use than the systems they replace. There will always be new trends and fads within the hobby, but RC is built on a rock-solid foundation of quality-minded manufacturers and well-engineered products that work—the very manufacturers and products that are so popular in Readers' Choice each year.

Our hobby is so strong because the products are strong—in every sense of the word. From the wide array of easy-to-operate nitro kits and RTRs, to seemingly indestructible electronic speed controls that program themselves with the touch of a button, to affordable radio systems that are stone-reliable with out-of-sight range, we are treated to the best technology the RC hobby has ever seen. For the beginner, getting started is easier than ever; for the enthusiast, the superior quality and precision of today's kits enhance the enticing complexity of building and competition. That's a perfect combination, since it is the beginners who will become tomorrow's enthusiasts!



### ALSO IN THIS ISSUE

We have the first test of HPI's RS4 Pro 3 and the first revealing photos of Team Losi's Triple-XS. The Pro 3's inline battery and the Triple-XS's single-belt drive (among many other features) represent new directions in touring car tech and could forever change the concept of what a belt-drive touring car should look like. See for yourself!

Don't miss the "Sedan Wheel Guide." In addition to lots of eye-pleasing rim options, there are tech insights that will surprise you; there's more to wheels than style! Everything you need to know is in there.

New wheels can help your car look fast, but a

2-speed tranny will help it go fast. Greg Vogel's "How To: Install 2-Speed Tranny" covers the conversion process step by step, so you can build while you read, then break the neighborhood speed record when you're done!

Until next month,

Peter Vieira  
Executive Editor

### NEW COLUMN!

This issue marks the debut of "Ultimate" (page 176), a bimonthly column that features an aftermarket transformation of a popular vehicle. We chose an Associated TC3 to kick things off, and you can look forward to seeing super-custom versions of best-selling Traxxas trucks, HPI machines, Tamiya fun-runners and other favorites every other month. The column alternates with Bob Hastings' "Body Shop," which seems like a good fit—hot chassis one month, hot bodies the next!

## RADIO CONTROL car action

### EDITORIAL

Group Editor-in-Chief TOM ATWOOD  
Executive Editor PETER VIEIRA  
Senior Editors CHRIS CHIANELLI, GEORGE M. GONZALEZ,  
STEVE POND  
Assistant Editors DEREK BUONO, BOB HASTINGS,  
KEVIN HETMANSKI, GREG VOGEL  
Editorial Coordinator DANA DONIA

### COPY

Copy Director LYNNE SEWELL  
Senior Copyeditor MOLLY Z. O'BYRNE  
Copyeditor COREY WEBER

### ART/DESIGN

Corporate Art Director BETTY K. NERO  
Senior Art Director ALAN J. PALERMO  
Promotional Art Director LESLIE COSTA  
Associate Art Director JOANNA WINN  
Assistant Art Directors VICTORIA HOWELL, COREY W. SMITH  
Staff Photographer WALTER SIDAS

### ADVERTISING

Associate Publisher and Director  
of Advertising SHARON WARNER  
Assistant to Associate Publisher SIRI A. WHEELER  
Senior Account Executive MONA TASSONE  
Advertising Account Executives JEANINE E. GERBACK,  
KATHRYN GEARHART, ANITA LEO  
Advertising Coordinator ANN T. WIEBER

### CIRCULATION

Circulation Director NED BIXLER  
Circulation Manager CARMINA M. MCGOVERN

### OPERATIONS

Director of Operations DAVID BOWERS  
Production Associate TOMLINSON S. WHEELER  
Senior Digital Production  
Coordinator CHRISTINE BACHMANN-CORBIN  
Digital Production  
Coordinator CHRISTINA MASCHKE-MILEO  
Production Assistant SHERRY MORGAN

### INTERNET

Director, Electronic Communications GARY KOLESAR  
Web Developer HOLLY HANSEN  
Database Coordinator DANIEL WELSH

### PUBLISHING

Group Publishers LOUIS V. DEFRANCESCO JR.,  
YVONNE M. DEFRANCESCO  
Associate Publisher SHARON WARNER

### CORPORATE

Chairman of the Board ALDO DEFRANCESCO  
President and CEO LOUIS DEFRANCESCO JR.  
Senior Vice President YVONNE M. DEFRANCESCO



Member Audit Bureau  
of Circulations

PRINTED IN THE USA



AirAGE

100 East Ridge, Ridgefield, CT 06877-4606 USA  
Customer Service (800) 877-5169  
www.rccaraction.com

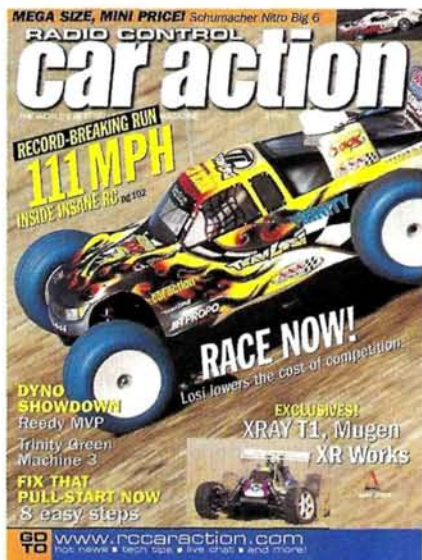


# Stick it to 'em!

I have been following RC cars since the early '80s, when Tamiya, Futaba and 1200mAh hump battery packs were the talk of the town. My first—and still my only—radio is the 2-stick Futaba Attack FP2NL with S28 servos and vintage “F plugs for the RX.” This radio has moved from my Super Champ to Audi Quattro to HotShot to FF02 and TLo1, and it now sits in my TAO3R NSX, having covered 20 years of RC’ing! In fact, during the last two years, I’ve used this vintage radio equipment in TCS races. I just love seeing the smiles I get on the stand when they see what I’m using. I’ve finished in B- and A-mains with a great deal of satisfaction, knowing I did it with a piece of RC radio history.

Slowly, I’ve come to believe that I need a more modern radio if I want to see podium hardware. Needless to say, I think the RC sport is a ton of fun and you guys at *RC Car Action* are keeping it hot with your magazine; thanks for being great RC ambassadors! PRESTON WONG  
Bloomington, IL

Maybe all you need to do is install fresh vacuum tubes in that old radio of yours ....  
—Pete



# Josh did

Who painted the Team Losi Triple-XT shown on the cover of the May issue? That thing is awesome! [email]  
BARRY WHITMAN

We forgot to give a paint credit! Joshua Thiel, of JoT's Designs, threw the paint for us. Josh also sprayed the “Race Maxx” featured in the November 2000 issue and the Team Losi Triple-XNT and Associated RC10GT featured in the March issue of *RC Nitro* magazine and the December 2000 *RC Nitro* cover car. You can contact Josh at jotsdesigns@yahoo.com.

—Pete

# Practice beats paycheck

I have an RC10T3 Team kit. I have always wanted to race, so I went down to the track to watch the action and ask racers about their cars. They all had top-of-the-line motors, ESCs, batteries, servos and radios. I have sport stuff, except for my motor. Could I be competitive among these people? I think that I am a really good driver, so why shouldn't I be? Why does RC racing have so much to do with how big your pocket is? I am only 14, so my budget is very limited.

I applaud Team Losi and its Spec truck and buggy. I now even question the purpose of the stock motor. What is the point of it if you can't afford batteries? I just wish that there was some kind of racing that wasn't based on the depth of your pockets. [email]  
THOMAS HAWKINS

As long as people are willing to buy expensive parts to go faster, there will be expensive go-fast parts. But you can't buy skill! Your Team truck can run against anything; if you can hang with the fast guys in the stock class—at least, until your pack gives out—your equipment isn't a problem.

If you are just as fast as the best drivers but you can't afford a pack that will let you run the required A-main gear ratio without dumping, it's time to see whether you can get a spec class together. It could be as simple as “Stock motors and unmatched 2000mAh stick packs only.” Talk to the track operators. They want to keep you racing; I guarantee it.  
—Pete

# Peak powered and flyin' with Orion

It was good to see *Radio Control Car Action* at the Reedy Race of Champions (May 2001 issue), but you guys goofed up the Invitational results! Travis Amezcua took fourth with Peak Performance motors and batteries, and Jason Corl came in eighth with Orion motors and batteries. It's tough just to get into the Invitational class, so I'm very proud of Travis's and Jason's results, and I want everyone to know that Peak and Orion power got them there.  
RICK HOHWART  
General Manager  
Peak Performance/Team Orion

Thanks for clearing that up, Rick, and sorry for the mistake.  
—Pete

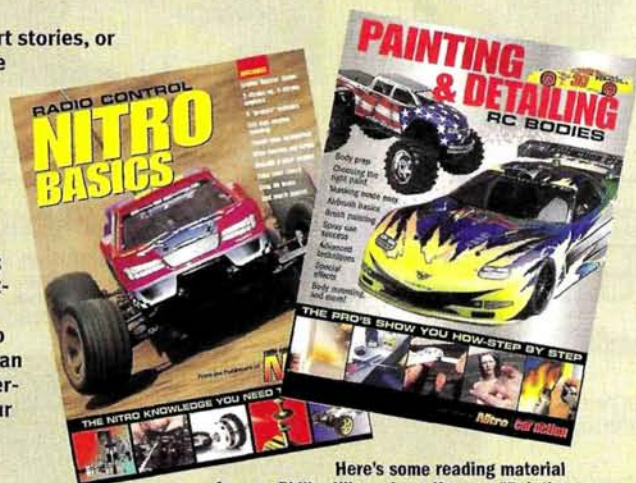
# YOU SAID IT

I would love to replace you guys when you retire!

I am 13 years old and I love *RC Car Action* magazine. I mean I totally love it. I love it so much that I would like to be an editor when I grow up. I would love to replace you guys when you retire! I want to be able to test cars and rate them and do all the wonderful stuff you guys do! Is there a class that teaches you how to do what you do? Can you give me some pointers on how to become an *RC Car Action* person? Thank you for making me so interested in the hobby. [email]  
PHILIP

If you want to be an editor for any magazine, you need to read and write well, so pay attention in English class, and let your teachers and parents know of your aspirations; they will be thrilled to help. Read all the time, whether it's a magazine such as *RC*

*Car Action*, good books and short stories, or newspapers. And remember: the best way to improve your writing is by writing, so write as much as you can. Write short stories, write in a journal, or report for your school newspaper. You don't have a school newspaper? Start one! Just keep writing. You're 13 now; if you keep working on your writing skills and reading *RC Car Action* until you're old enough to work full time, you'll be more than ready to be an “*RC Car Action* person.” I'll keep an eye out for your resumé.  
—Pete



Here's some reading material for you, Philip; I'll send you the new “Painting & Detailing” and “Nitro Basics” books.

**WRITE TO US!** We welcome your photos, drawings, comments and suggestions. Letters may be emailed or addressed to “Letters,” Air Age Inc., *Radio Control Car Action*, 100 East Ridge, Ridgefield, CT 06877-4606 USA. Letters may be edited for clarity and brevity, and each must include a full name and address or telephone number so that the identity of the sender can be verified. We regret that, owing to the tremendous numbers of letters we receive, we can't respond to every one.

EMAIL ■ Derek Buono: derekb@airage.com ■ Chris Chianelli: chriscc@airage.com ■ George M. Gonzalez: george@airage.com ■ Bob Hastings: bobh@airage.com ■ Kevin Hetmanski: kevinh@airage.com ■ Steve Pond: stevep@airage.com ■ Peter Vieira: peterv@airage.com ■ Greg Vogel: gregv@airage.com





BY CHRIS  
CHIANELLI

## PRO-LINE TRUCK STUFF 2001 GMC Sierra Body for RC10GT

The newest Pro-Line shell is engineered for an extra-slammed fit on Associated's RC10GT Factory Team truck. It includes window masks, decals and an add-on spoiler with mounting hardware.



## Sneaking Power Out the Back Door

### Trinity/Picco Rear-Exhaust Engine

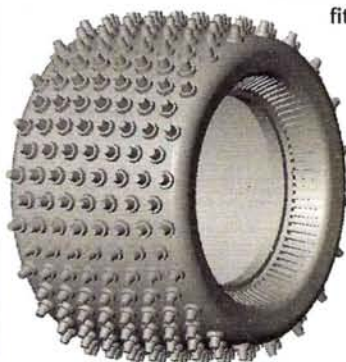
Back in October, Trinity announced it would introduce a rear-exhaust Picco .12 racing engine, and here it is! The new Picco P12 and P15 rear-exhaust engines feature a new block design cast in a new foundry to improve the quality of the material used in the engine blocks and help them endure the rigors of the most demanding nitro racing. Picco is the only engine manufacturer with a high-performance .15 engine, and now it's the only one that has a competition .15 rear-exhaust engine. Specs and performance data were unavailable at press time, but it's anticipated that these engines will produce more power than their side-exhaust counterparts.

Picco small-block engines; distributed by Trinity Products, 36 Meridian Rd., Edison, NJ 08820; (732) 635-1600; [www.teamtrinity.com](http://www.teamtrinity.com).



## More MAXX Rubber

The Maxx Road Rage, Maxx Paddle and Maxx Step-Pin are the newest additions to Pro-Line's Maxx-truck tire line. The Maxx Road Rage includes oversize foam inserts and



fits stock Maxx wheels (or any aftermarket Maxx rim, including Pro-Line's Outback hoops). The Paddle and Step-Pin tires should have the same features and should be available soon—computer illustrations are all I could score for now!

Pro-Line, P.O. Box 456, Beaumont, CA 92223; (909) 849-9781; [www.pro-lineracing.com](http://www.pro-lineracing.com).



## When You're Hot, You're Hot (but how hot is that?) Traxxas On-board Temperature Gauge

If this Traxxas temperature gauge looks familiar, that's because it's made for Traxxas by MIP (and that means it's made in the good ol' USA). The gauge uses an engine-mounted sensor loop to measure temperature in Celsius and Fahrenheit, and the gauge can be switched off to conserve battery life.



## Traxxas Switches to Novak-power! NOVAK-DESIGNED ESC TO REPLACE E-MAXX'S VX12



Electronic speed control monolith Novak and Maxx manufacturer Traxxas have teamed to revise the E-Maxx with a new heavy-duty speed controller. The Novak-designed and built ESC will be called "EVX" and will be included with the E-Maxx as a running change. The EVX will be sold and warranted exclusively through Traxxas as a Traxxas part. Novak has equipped the EVX with many proprietary Novak features, including speed-sensing Smart Braking technology, programmable functions, three drive profiles, thermal-overload protection, One-Touch Set-Up and high-power servo output. The cell capacity is unchanged; the EVX will handle 12 cells in series. We'll test one as soon as we can!

Traxxas Corp., 12150 Shiloh Rd., Dallas, TX 75228; (972) 613-3599; [www.traxxas.com](http://www.traxxas.com).

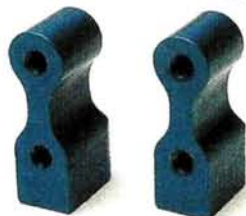




## Team Kinwald RC10GT options

Sure, Brian drives for Losi, but Team Kinwald parts aren't just for Losi cars. The latest batch from the Kinwald/Titan Tech connection includes a whole bunch of Associated RC10GT items, such as an adjustable engine mount/brace for all bump-start .12 to .15

## Kinwald Caught with Associated Parts!



engines, universal servo mounts (that you can use in other vehicles, too) and heavy-duty parts including nose-tube mounts, rear bulkhead, rear lower shock mounts and transmission brace.

Trinity Products Inc., 36 Meridian Rd., Edison, NJ 08820;  
(732) 635-1600; [www.teamtrinity.com](http://www.teamtrinity.com).



## MAXX OWNERS: SAY NO TO PLIERS!

### TRINITY GLOW PLUG/MAXX WHEEL NUT WRENCH

If you don't have a Traxxas Maxx or a nitro car, you're excused for thinking "Big whoop—an 8mm nutdriver." But if you do have a Maxx—especially a T-Maxx—then you know that a solid 8mm nutdriver to fit the axle nuts and glow plug is like gold! With its precision steel socket, machined-aluminum handle and tasteful O-ring accents, this one from Trinity is the most deluxe driver you can get.



Trinity

## TEAM TOOLS

Inch Size Pro Nut Drivers  
RC2071 3/16"  
RC2072 5/16"  
RC2073 3/8"  
RC2074 11/32"  
RC2075 1/4"

RC8105 Body Hole Reamer

RC7023 Body Trimming Scissors

Metric Size Pro Nut Drivers  
RC2069 3mm  
RC2070 4mm  
RC2077 Spring Post Wrench

2.0mm

2.5mm

3/32"

RC2063 .050" Pro Wrench  
RC2064 1/16" Pro Wrench  
RC2060 1.5mm Pro Wrench  
RC2061 2.0mm - 5/64" Pro Wrench  
RC2062 2.5mm Pro Wrench  
RC2065 3/32" Pro Wrench  
RC2067 Phillips Screw Driver  
RC2066 Carb Tuning Flathead Screw Driver

NEW!

TRINITY



# Powerful Pro Performance Parts and Chevy Style from HPI

## RS4 Pro 3 options · Chevy Camaro SS shell

THE NEW PRO 3 IS RACE-READY OUT OF THE BOX, but there's always room for improvement—hence, these hop-ups from HPI. Basically, we're looking at drive-train and suspension-tuning parts and some style factors, as well.

- **PRO LINEAR SPRINGS.** These fall between HPI's 6849 Pink and the 6751 Orange Pro Linear Springs for nitro cars.
- **FRONT ONE-WAY DIFFERENTIAL.** "One-way differentials are best used on very high-grip racing surfaces and allow the front wheels of the car to have more grip and 'pull' the car through the exit of a turn with more power than a ball differential," says HPI.
- **PURPLE ONE-WAY FRONT BELT PULLEY.** This unit gives you the benefits of a one-way drive system and retains the ability to adjust the front ball differential. You can also use the one-way pulley and one-way diff together.

The purple-anodized aluminum heat-sink motor plate and MIP CVDs need no introduction. The motor plate is finned to increase cooling, and the aluminum CVDs trim some rotating mass when used to replace the plated-steel CVDs included as stock.

And the Camaro? It's a 200mm shell complete with overspray film, window masks, plenty of vinyl decals and two wings: street scale (shown), and high downforce for extra racing performance. The SS bodywork is officially licensed, and it looks killer—you knew that.

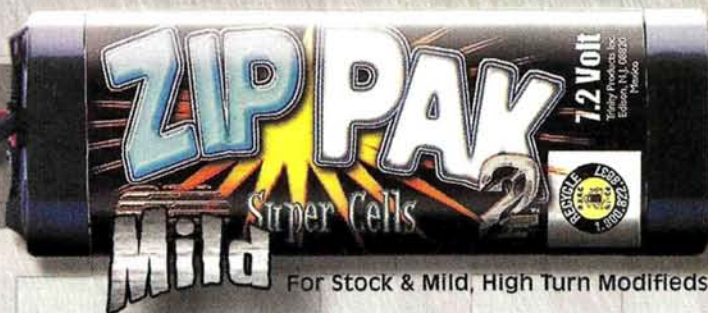
HPI Racing, 15321 Barranca Pky., Irvine, CA 92618; (949) 753-1099; [www.hpiracing.com](http://www.hpiracing.com).



## Put The ZIP Back In Your Car

The World's Most Popular Sport Pak Has A New High Capacity Mate

**1500 MAH**  
**NI-CD**



RC5922  
\$18.99

**2500 MAH**  
**NI-MH**



RC5900  
\$34.99

36 Meridian Road  
Edison, NJ 08820  
Ph: 732.635.1600

Fx: 732.635.1640  
Toll Free Tech: 877.380.0040  
M-F 9-10:30 & 5-6:30 EST

**AMAZING!**

For Hot, Low Turn Modifieds & For  
Extended Stock Run Times

[www.teamtrinity.com](http://www.teamtrinity.com)



## MORE POWER TO YOU

Wow ... lots of new batteries are hitting the hobby shops! There are packs for everyone from hardcore racers to backyard commandos, so there's no excuse not to have enough juice.

### PEAK Performance



According to Peak, "PowerFlo racing cells are processed with high current to permanently increase voltage output and lower internal resistance. In addition, all cells are stabilized by a triple cycling process, thus producing the most accurate and precise readings." After the PowerFlo treatment, Peak matches the cells using Lavco computer-controlled testing equipment in a climate-controlled environment.

In addition to the full-on PowerFlo race packs, Peak has some new sticks for the sport set. Its Power Plant packs are offered with Sanyo 3000mAh NiMH or 2400mAh Ni-Cd cells, and the 2000mAh Power-Maxx pack is sold in pairs to suit the Traxxas E-Maxx (but you can use the packs in all electric vehicles, of course). All Peak stick packs include an industry-standard Tamiya-style connector.

Peak Performance, 22601 La Palma Ave., #104, Yorba Linda, CA 92887; (714) 692-8533; [www.peakmotors.com](http://www.peakmotors.com).



## TRINITY ZIP-METAL HYDRIDE PACK

Trinity's newest stick pack puts a premium on run time with 3000mAh NiMH cells and keeps the price low, in the Zip Pack tradition. As usual, flexible silicone wiring and a Tamiya connector are standard.

Trinity Products Inc., 36 Meridian Rd., Edison, NJ 08820; (732) 635-1600; [www.teamtrinity.com](http://www.teamtrinity.com).



## Team Orion V•Maxx Super Duty 2400 stick

Orion has built its reputation on the V-Maxx process, which is claimed to permanently lower the internal resistance of the cells for more voltage, and that means more punch. That technology comes to stick packs with Orion's 2400mAh V-Maxx Super Duty pack, which is sold in pairs and can be used in all electric vehicles but is aimed squarely at the power-hungry E-Maxx crowd.

Team Orion Inc., 22601 La Palma, Ste. 103, Yorba Linda, CA 92877; (714) 694-2812; [www.team-orion.com](http://www.team-orion.com).



## VORTEX MATCHED POWERS 3000 CELLS

Vortex is matching the Powers GT3000R cells, with numbers as high as 420+ seconds at 30 amps. All the cell testing is done with Competition Electronics' Turbomatcher 4s, and the packs will be offered at different price points depending on run time (350+, 400+ and 420+ seconds). Vortex matches the cells with a 5A charge, 30A discharge and 0.85V cutoff.

Magma Intl. Ltd., Unit 8, 175 West Beaver Creek Rd., Richmond Hill, Ontario, Canada L4B 3M1; [www.magmarc.com](http://www.magmarc.com); [www.teamvortex.ca](http://www.teamvortex.ca).

## MUGEN TO RELEASE NITRO RACING TRUCK

Mugen Seiki, manufacturer of the world champion MRX-2 1/8 on-road car and the MBX-4XR 1/8 off-road buggy, has just announced that it plans to introduce a top-of-the-line 1/10 nitro racing truck in late fall. Details were few at press time, but our sources suggest that this new truck will conform to all current racing regulations set by the major race-sanctioning organizations. The Mugen truck will use standard-size axles, gears, wheels and tires, and is rumored to include a number of innovations that will bring nitro-truck technology to the next level.

Mugen USA, 20914 Blake Pky., Ste. 106, Lake Forest, CA 92630; (949) 707-5607; [www.mugenseiki.com](http://www.mugenseiki.com).



## Readers' Rides

Win a one-year subscription to *Radio Control Car Action* magazine! Send a sharp, uncluttered, well-exposed color photo of your vehicle (no Polaroids) and a brief description to "Readers' Rides," *RC Car Action*, 100 East Ridge, Ridgefield, CT 06877-4606 USA. If we publish your photo, you'll receive a free, one-year subscription to *RC Car Action* and will be eligible to win the "Reader's Ride of the Year Contest." Write your address and phone number on your letter and on the back of every photo you send. Good luck!



### Martin Benfield, Hudson, NC Associated RC10GT Factory Team

So your son just turned 16, and you want to give him the perfect gift—of course, a Factory Team GT! Did I mention that Jake is 16 months old? His dad believes that "You're never too young to start" and tells us "Big Jake" is great at going straight. We often get the same compliment.



### Bruce Danek, Milwaukee, WI Tamiya F103

If you're looking for some F1 action in the Midwest, try S&N Trackside Hobbies in Milwaukee. You'll see this Tamiya racecar trimmed in a beautiful Jaguar color scheme. The car has a stock motor, and Bruce writes that it has a very realistic feel on the carpet track.



### Frank Hernandez, Indio, CA Tube-Frame Tamiya Clod Buster

When Frank created this monster, he didn't play favorites as far as brands were concerned. The gearboxes are Clod Buster, the body is a Pro-Line Excursion for the T-Maxx, and those rims and tires are straight off the Kyosho USA-1. Frank designed and built the chassis and did the paintwork, too. The truck has a pair of Trinity 17-turn motors, two Sanyo 7-cell packs, a Futaba 3PJS radio and a Hitec 605 steering servo.

### Jason Stingerie, Widefield, CO HPI Nitro RS4 Racer 2



Nice shot of this Audi A4, the HPI-body tourer has an onboard Airtronics M8 radio, a heavy-duty HPI 2-speed tranny, Pro-Line V-Rage tires, Robinson ball diffs and drive pulleys, MIP shiny CVDs and a Motor Saver air filter. A Trinity/Picco .12 engine delivers power; Jason is experimenting with various exhaust-outlet mods on his HPI tuned pipe.





### Archie Timmons, Milwaukie, OR Tamiya Rover Mini Cooper

Before you dismiss this nitro-powered Mini as being merely "cute," be advised that it has a split personality. Its owner wanted high speed and endurance, so he took its Tamiya FS-12LT engine and retrofit a 5.5mm-bore HPI carb. Add to this a 2-speed tranny, full bearings, swaybars and a

lightweight fly-wheel, and it really sounds as if Archie achieved his goal. The Mini also has a Futaba radio system and an electric starter and is finished in Pactra paint.



### Joe Chesnutt, Lancaster, PA Team Associated Dual Sport

Inspired by Dale Earnhardt's team Corvette C5-R from the 2001 Rolex 24, Joe created his own using a Dual Sport chassis and an HPI body. This road racer features a P2K motor, a Novak Rooster speed control and an Airtronics Sport radio. Joe says "The C5-R project was not intended to be a tribute to Dale Earnhardt, but in a way, it has become one." ■



### Marco and Mauro Bertulazzi, Bergamo, Italy Tamiya TA04, HPI RS4 Pro 2

This Hara replica is Marco's TA04; the racer is outfitted with Futaba radio gear, a GM V12 ESC, Tamiya 2400 batteries and a Dina-run super touring motor. The HPI Peugeot 406 is brother Mauro's Pro 2 chassis. He uses a GM speed control and an EVO 2 10-double motor powered by Sanyo 3000 cells.



### Peter Serranilla, Vancouver, WA Traxxas T-Maxx

It's funny how our hobbies can be interconnected; Peter collects Hot Wheels, and he proudly flies that logo on his T-Maxx body. His truck has an RC Raven roll cage, Powerline body mounts, a GPM cooling head, Traxxas aluminum bumpers and skidplate, an MIP stinger and temp gauge, and Trinity bulkhead braces and steering-servo skidplate. The T-Maxx wears Pro-Line Weld Outback wheels and is equipped with homemade swaybars, too.



## Pit Tips

ILLUSTRATIONS BY  
DAVID BAKER

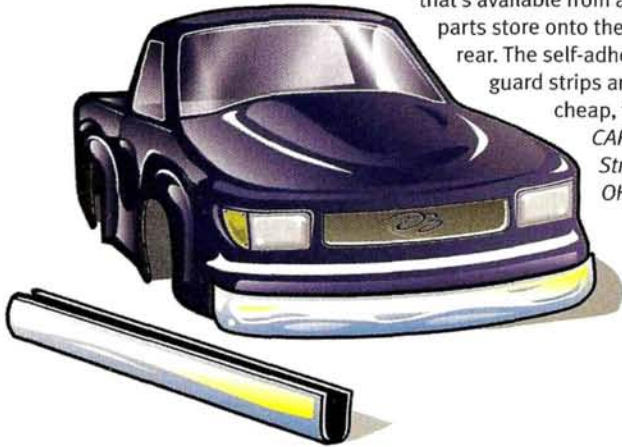
**WIN AN OFNA Z-10 RALLY!** Radio Control Car Action will give a 6-month subscription (or extend an existing subscription) to the author of each idea used in "Pit Tips." "Top Tip" winners receive an OFNA Z-10 Rally kit. All published "Pit Tip" authors receive an OFNA yo-yo. Send a rough sketch to Bob Hastings c/o Radio Control Car Action, 100 East Ridge, Ridgefield, CT 06877-4606 USA. BE SURE YOUR NAME AND ADDRESS ARE CLEARLY PRINTED ON EACH SKETCH, PHOTO AND NOTE YOU SUBMIT. We're unable to publish many good tips because we don't have the sender's name and address. Please note: because of the number of ideas we receive, we can neither acknowledge every one nor return unused material.



### Bright Bumpers

You can make your scale RC bodies even more like the real things with this tip. Simulate chrome door-edge guard that's available from any auto-parts store onto the front and rear. The self-adhesive guard strips are cheap, too.

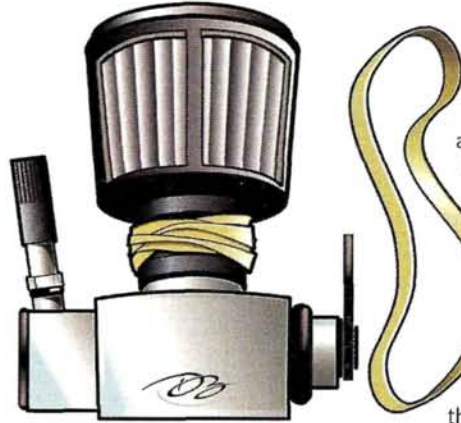
CARL FLANIK  
Streetsboro,  
OH



### Air-Filter Access

If your air filter has a closed top and it's zip-tied onto your carburetor, it's hard to access the intake to prime the engine or add after-run oil. Instead of using zip-ties, fasten the filter to the intake with a rubber band that has been doubled over several times. The filter will be secure but will be easier to remove and reinstall.

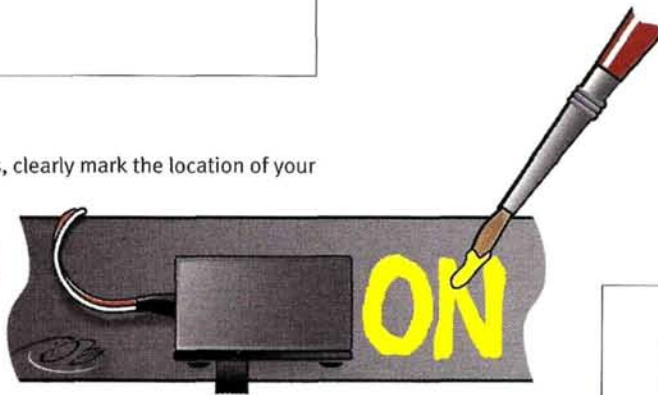
AARON TALBOT  
Dayton, MD



### Switch Finder

Just as they do on full-size racers, clearly mark the location of your power switch so that marshals and helpers can find it quickly. Mark the "on" side with brightly colored paint so you'll be able to tell at a glance whether your vehicle is on or off.

BRIAN HORNE  
Taylorsville, UT



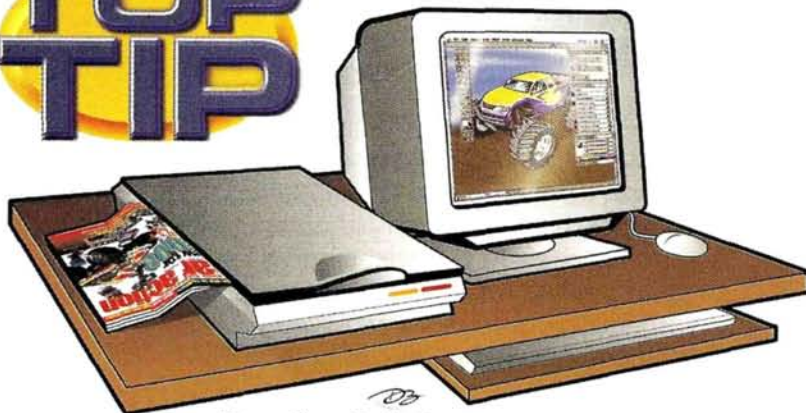
### Extra Tire Traction

For more traction in mud and snow, run zip-ties through the spokes of your wheels, as shown here. The ties act like paddles and give more grip in slippery conditions.

BEN DANIELS  
Kansas City, MO



## TOP TIP



### Practice Paint

This tip will let you "try out" paint jobs before you spray your car's body. If you have access to a computer scanner, use it to scan magazine pictures of bodies that you like. Scan them as "BMP" files and you'll be able to use the Windows Paint program to try different designs and colors on screen before you paint the real thing.

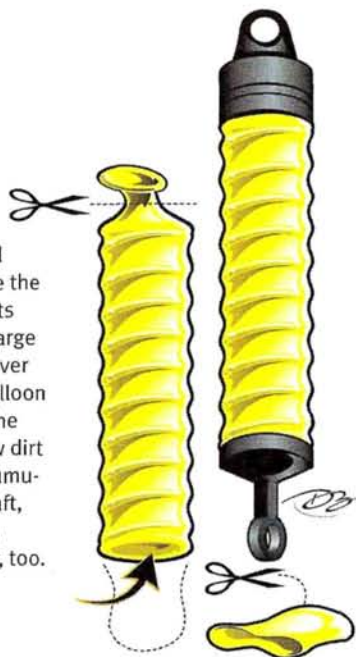
RICHARD PENNEVASO  
Madison, WI



## Pit Tips

### Shock Protection

To keep your off-road shocks clean, remove the shock's spring from its perch and stretch a large balloon completely over it. Fold the excess balloon inside and reinstall the enclosed spring. Now dirt won't be able to accumulate on the shock shaft, and your suspension looks a little dressier, too. [email] STILLWATER



### Trackside Body Repair

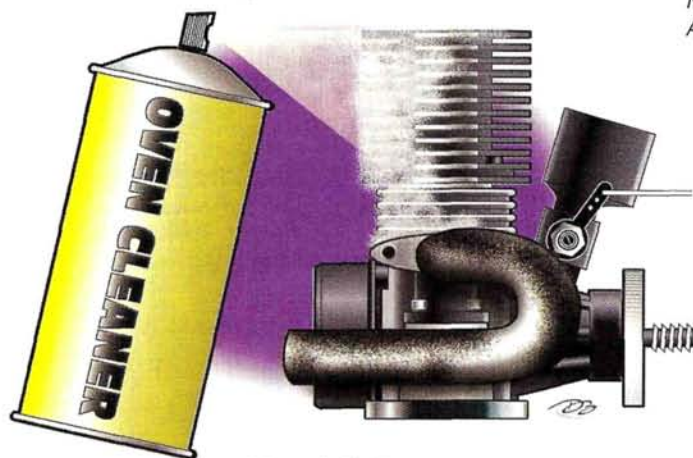
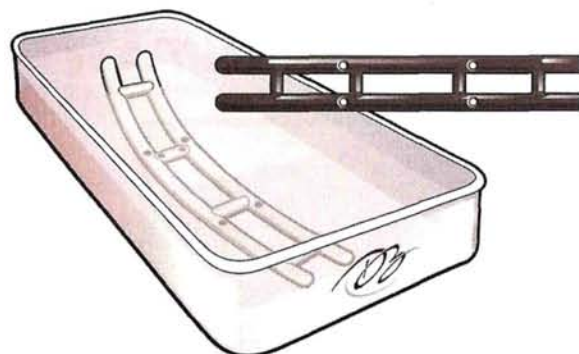
Here's how to make a trackside body repair and prevent further cracks from forming. Stick masking tape over the damaged area on the inside of the body, saturate the tape with CA, and let it dry. The tape soaks up the CA, and when it has dried completely, you have a strong repair.

MARK BIEBRICH  
Winnipeg, Manitoba, Canada



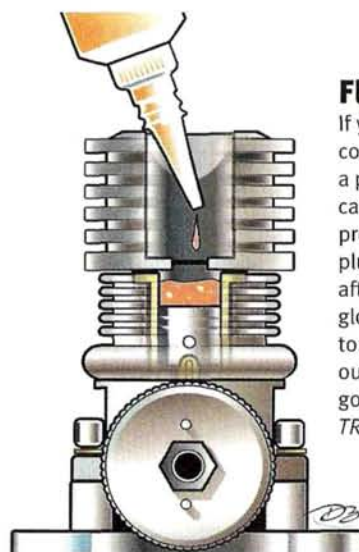
### Bumper Blackout for Maxx Trucks

Scratched-up bumpers detract from your Traxxas monster's looks, so why not just remove all the plating so that the bumpers are a uniform black? To do this easily, fill a small container about halfway with nail-polish remover, and soak the bumpers for approximately half an hour. Remove the remaining silver with an old toothbrush. Wear safety glasses when working with solvent. NEIL TACKETT  
Acme, PA



### Varnish Remover

You can easily remove the nasty brown junk that builds up on your engine's exhaust header and crankcase by spraying it with oven cleaner. Protect the chassis with newspaper, then run the engine briefly, turn it off, and apply the oven cleaner (follow the product's instructions). Your engine will look like new. To clean off particularly stubborn grime, use a rotary tool and a wire-wheel attachment. [email] JIM ROTH



### Flywheel Fastening

If your engine's flywheel has come loose and you don't have a piston-locking tool handy, you can still tighten the clutch nut properly. First remove the glow plug, then fill the cylinder with after-run oil and install an old glow plug to hydra-lock the piston. Tighten the clutch nut, flush out the oil and reinstall your good glow plug. [email] TROY GUBBINS



# Troubleshooting

BY GEORGE M. GONZALEZ

If you have a technical problem that your hobby shop or racing friends can't resolve, give us a shout at *Radio Control Car Action*. Questions should be of a technical nature and should be emailed to [georgeg@airage.com](mailto:georgeg@airage.com), or addressed to Troubleshooting, Radio Control Car Action, 100 East Ridge, Ridgefield, CT 06877-4606 USA. We regret that, owing to the tremendous number of letters we receive, we can't respond to every one.

## Belt Damage Prevention

I have a problem with my belt-driven touring car: after every run, the rear diff pulley is completely covered with dust, dirt, asphalt, etc. At first, I didn't mind it, but when I ran my car two or three times more, the rear drive belt snapped. I realized that the debris that collects on the rear diff pulley causes the belt to skip over the pulley. What should I do to prevent this? I've already replaced three rear drive belts and one front drive belt; I don't want to have to replace belts after every run. [email]

KRIS HERIANA

Unless equipped with a sealed drive train, belt-driven tourers have to be cleaned after every run, especially if they're driven on driveways or dirty parking lots. Most tracks have a communal air compressor for cleaning cars, but a soft paintbrush is all you really need to clean it. Inspect the pulleys after every run, and use a hobby knife to remove pebbles and other debris that might be lodged between the pulley's teeth. Cleaning your car after every run isn't really a hassle if you do it regularly. You should allow the motor, batteries and electronic speed control (ESC) to cool down after every run anyway, so why not clean your car during that downtime?

Some racers make openings in the chassis under the diff pulleys to allow debris to fall out and not get stuck on the pulley and belt. I don't recommend this modification because the openings also allow debris to enter—a "Catch-22" situation.



After each run, give your car a good shake to dump out any loose debris. Dust off the chassis with a soft brush or blast of air from a compressor, then inspect the belts and pulleys for any imbedded pebbles or sand (or giant boulders). Use a dull hobby knife to pick out anything you find.



PHOTOS BY WALTER SIDAS

## New Traxxas Aluminum Shock Components Work With Your Stock Parts!

### T-Maxx Blue Shock Bodies



CNC machined, blue anodized aluminum shock bodies, sold in pairs. RRP \$511

### Blue Lower Spring Retainers



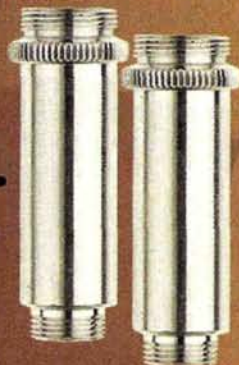
Machined, blue anodized aluminum retainers, sold in pairs. RRP \$516

### Aluminum Upper Spring Retainers



Machined upper spring retainers, sold in sets of 4. RRP \$530 8mm, RRP \$520 4mm

### T-Maxx Silver Shock Bodies



CNC machined, natural silver aluminum shock bodies, sold in pairs. RRP \$510

### Silver Lower Spring Retainers



Machined, natural silver aluminum retainers, sold in pairs. RRP \$515

### 48P Absolute Series Pinions



Super hard, lightened and cut with unmatched precision. Great with any spur, but with an Absolute spur, even off noise is gone! Available in 48P in 16T thru 28T sizes. RRP \$416 - RRP \$426

### 48P / 64P SuperLite Aluminum Pinions



They're lightened, hard coated and precision cut. Available in 48P in 16T thru 28T, and 64P in 24T thru 38T. RRP \$20XX (48P) and RRP \$11XX (64P). Only \$5.25

### 48P Hard Nickel Plated Steel Pinions



These precision cut gears have an extremely hard coating that makes them really last. Available in 12T thru 35T. RRP \$1012 - RRP \$1035



## Overheated T-Maxx

I'm an RC gas engine beginner and have a Traxxas T-Maxx powered by the TRX-15 engine it came with. I have run it only in the winter and without the body, but it overheats badly all the time. I haven't run it in the summer yet, and I don't think I want to. I generally have it so rich that the engine has no power, and it won't even shift into second gear; it does switch gears when I lean it out, though.

I've done the water-drop test, and the engine is definitely too hot; it wrecks the glow plug every time. I'm looking for a better, more user-friendly engine with more power—something that is easy to start with a pull-starter. Could you please recommend an engine and a pipe? [email]

POLARIS233

Cool your jets, Polaris! It sounds as if you haven't given your stock engine a chance. According to the Traxxas technical support team, the TRX Pro 15 runs best when its temperature is between 280 and 315 degrees. Yes; this is a little hotter than most engines run, but the T-Maxx is heavier than most 1/8-scale nitro trucks.

You admit your engine is set too rich; that's why you blow glow plugs and your truck won't shift into high gear. Don't be afraid to lean out the high-speed needle valve a little. Buy a temperature gauge so you'll be able to monitor your engine's temperature accurately. MIP sells an onboard temp gauge that costs less than \$50 and can be installed just about anywhere on the T-Maxx's roomy chassis.



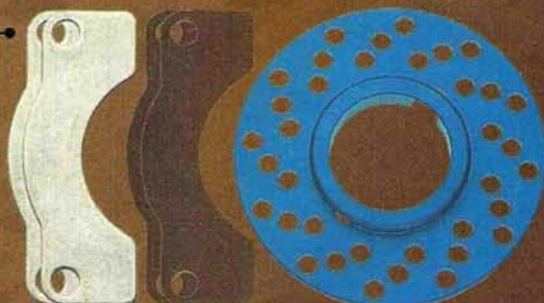
Even an engine that is running "cold" will feel hot; to accurately check the engine's temp, you can use a chassis-mounted gauge from MIP (Traxxas offers an identical unit) or an infrared temp gun like the one pictured above from RayTech.

### NEW T-Maxx Steel Diff Gear Set



T-Maxx / E-Maxx differential gear set, includes: 1 beveled pinion gear, 1 beveled spur gear, 4 re-usable stainless steel Phillips head screws, 1 tube Associated Black Grease, and a shim kit for spider gears with 10 .003" shims. 2 sets needed per truck. RRP \$590

### NEW T-Maxx Aluminum High Performance Brake Kit



New, lightweight aluminum high performance brake kit, includes bigger, more aggressive brake pads and steel backing plates. One piece vented rotor minimizes side-to-side wobble. RRP \$560

### T-Maxx Vented Flywheels



Aluminum vented flywheels move air over clutch bell, improving performance and cooling. RRP \$551 Blue, RRP \$550 Natural Silver

### Hardened Steel Spur Gear With Ball Bearing



Precision CNC machined from solid steel, and then hardened, these spurs will last and last. RRP \$572 T-Maxx and Nitro Rustler, RRP \$565 Nitro Stampede

[www.robinsonracing.com](http://www.robinsonracing.com)



**ROBINSON RACING PRODUCTS**

4968 Meadow View Drive · Mariposa, CA 95338 · Voice 209.966.2465 · Fax 209.966.5937



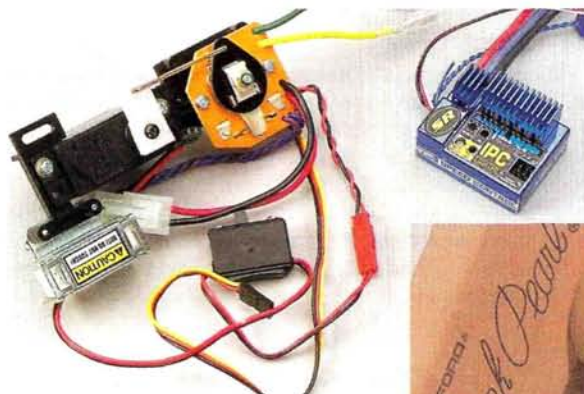
# Troubleshooting

## Puff the Smoking Juggernaut

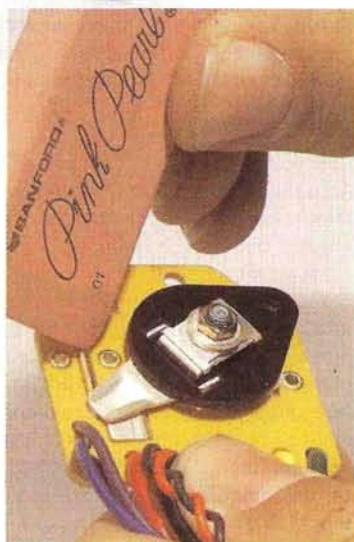
I have a Tamiya Juggernaut 2 with the stock speed control, motors and a 3000mAh battery pack. The truck runs great for a few minutes, but then the speed control gets really hot and sometimes even starts to smoke. I've already had to replace it once, and I don't want to have to do that again. Can I do anything to make the truck get through a battery pack without burning up the speed control? The folks at my local hobby shop advise me to buy an electronic speed control (ESC). If you agree that I need an ESC, which type should I buy?

ISAAC ACOSTA  
Miami Beach, FL

Aside from cleaning the contacts regularly, there is very little you can do to make a mechanical speed control (MSC) run cooler or last longer. Installing pinion gears with fewer teeth on each motor might help, but it will give the truck more low-end punch and reduce its top speed. If you use a lower-capacity battery pack (one with less than 2000mAh), chances are, your truck will run well and completely drain the battery without overheating the MSC. Anything more than four minutes of straight running will overtax the MSC and might cause it to fail (especially if you usually run the truck at slower speeds). Your hobby shop gave you sound advice. Novak and LRP manufacture high-quality ESCs, and each company offers a few models with forward and reverse that will fit your truck's dual-motor needs.



Above: an ESC will save quite a bit of room and weight over a mechanical speed controller. Right: you can prolong the life of a mechanical speed control by keeping the contacts clean. A rubber eraser will polish them up nicely.



### RS4 Nitro Aluminum Brake Kit



Lightweight aluminum, variable braking system. RRP 1575

### RS4 Nitro Vented Flywheel



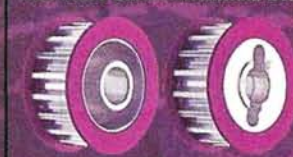
Aluminum vented flywheels move air over clutch bell, improving performance and cooling.  
RRP 1570  
RRP 1571 Pull Start

### Stealth Sedan Spurs



These precision machined spur gears are super quiet. They're available in 48P in 60T thru 96T sizes, and fit any HPI electric car or truck.  
RRP 1860 thru  
RRP 1896.

### RS4 Nitro Small Aluminum Drive Pulleys



Hardened drive pulleys, sold in pairs.  
RRP 1538

### RS4 Top Shaft Pulley



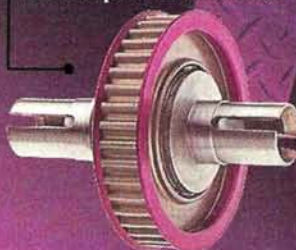
One piece pulley and shaft are precision cut and hard anodized. Purple anodized side flanges are pressed on. RRP 1527

### RS4 / Pro / Pro2 / Nitro Aluminum Outdrives



40% lighter than stock ball diff outdrives. RRP 1585

### RS4 Complete Ball Diff Units



Hardened steel outdrives, ground and polished thrust washers, 2 5x8mm ball bearings, and aluminum pulley.  
RRP 1590 Electric  
RRP 1595 Nitro

### RS4 Diff Pulleys



Precision machined, hard anodized aluminum diff pulleys.  
RRP 1539 nitro sedans  
RRP 1528 electric sedans

### RS4 Nitro Lightened Gear Adapter



This lightened gear adapter includes a machined nylon spur that's tougher than the stock gear and will last longer.  
RRP 1535

[www.robinsonracing.com](http://www.robinsonracing.com)

RS4 Nitro 32 Pitch Conversion Kit is available. RRP 1536



## Rally Body Reinforcement

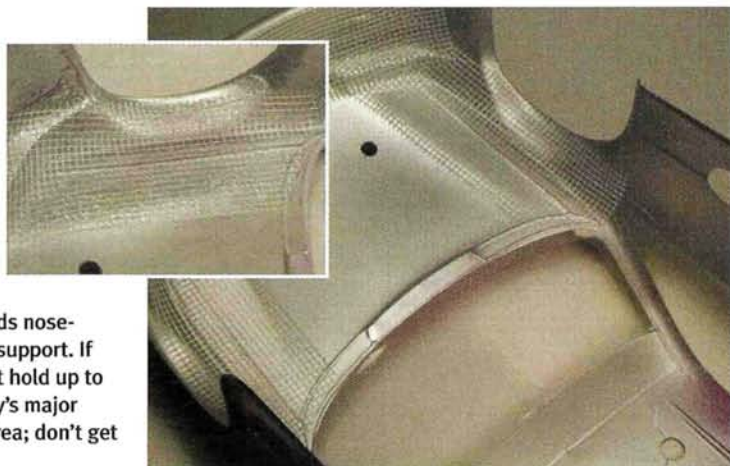
I have an HPI RS4 rally, and I think it's one of the most versatile cars around. The off-road track near my house has started a class for rally cars, and I race there every Saturday night. My car works great, but it isn't as fast as some of the other cars on the track. I geared up two teeth on the pinion gear, and this helped a lot, but now the motor gets so hot that one of the wires always becomes unsoldered from the motor tab. I also have to replace the body after every race. Is there a way to make the body stronger?

TERRANCE IGNASIO  
Fountain Valley, CA

Fountain Valley, huh? You must race at SoCal Raceway. I've competed in the Rally Class at SoCal a couple of times myself, and it's an absolute blast. Do you race the car with its Lexan chassis cover installed? If you do, it's the cause of your overheating. Most indoor tracks have relatively smooth surfaces, and you don't need the Lexan chassis protector. If you race on another track—one with lots of stones and gravel—you'll need the Lexan cover, and you'll have to gear your car more conservatively. Make a few openings in the cover to allow an adequate airflow, too.

As far as strengthening the body goes: make exaggerated wheel openings to allow full suspension travel without allowing the tires to rub against the body. Cut off the bumper area and most of the front grill to prevent the front of the body from scraping on the surface when your car lands nose-down after jumps. Install HPI's urethane bumper option; it offers extra body support. If the body has a separate wing, secure it with nuts and bolts (servo tape won't hold up to rally racing abuse). You could also run a light coat of Shoe-Goo over the body's major stress points, such as the front wheel openings and the front bumper/grill area; don't get carried away, though, because the glue adds considerable weight. ■

Flexible Shoe Goo can be used to strengthen bodies in the most damage-prone areas (usually the nose and the tops of the front wheel wells). For even greater crash resistance, you can press fiberglass mesh into the goo before it dries.



### RC10-GT Steel Combo



Precision machined from solid steel, then hardened, this 65T spur and 15T bell combo will last and last. The extra-hardened clutch bell fits ALL Associated and MIP shoes. RRP 2365

[www.robinsonracing.com](http://www.robinsonracing.com)

### Hardened Steel Idler Gear



Cut from solid steel stock, this gear is lightened and hardened for super quiet precision and extra long life. Jammin' tranny grease is included. RRP 2213 RC10-GT, RRP 7505 Ultima GP-R

### Associated Titanium Stealth Top Shaft



CNC Machined from solid titanium, this super hard, super light top shaft will fit any Stealth transmission. RRP 1512.

### Hardened Diff Gear



Hard anodized, precision CNC machined aluminum diff gear. RRP 1513 RC10-GT RRP 7500 Ultima GP/EP-R

### Blue Lightened Slipper Kit



The rear plate is hard anodized and the front plate is color treated. The front plate holds the pad forcing it to slip on the rear plate. When pad wears, just flip it over for a new surface. RRP 1515 Associated, RRP 7515 Kyosho Ultima

### Aluminum Outdrives



40% lighter than stock ball diff outdrives. RRP 1475 TC3, RRP 1502 B3/T3

### TC3 Ultra 48 Pitch Spurs



Precision machined from heat-resistant plastic, these spurs mesh flawlessly with our pinions. Available in even numbers from 70T thru 80T, RRP 1670 RRP 1680.



**ROBINSON RACING PRODUCTS**

4968 Meadow View Drive · Mariposa, CA 95338 · Voice 209.966.2465 · Fax 209.966.5937

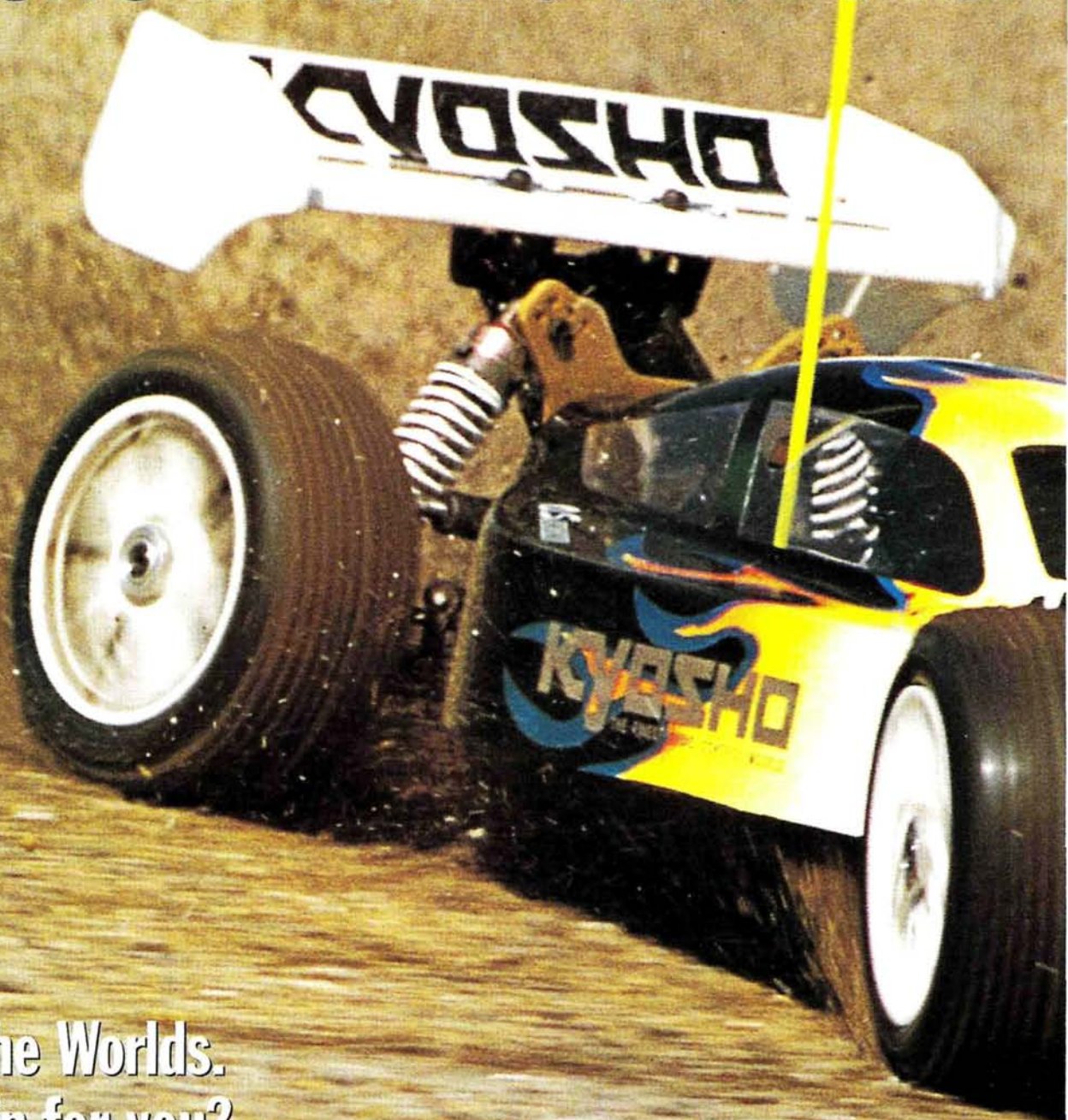






**TRACK  
TEST**  
1/8-SCALE NITRO

# Kyosho Inferno MP 7.5



**It won the Worlds.  
Will it win for you?**

by George M. Gonzalez

The Kyosho Inferno's impressive lineage includes five consecutive IFMAR 1/8-scale Off-Road World Championships. In its quest to defend its title last year, Kyosho designed the Inferno MP-7.5—arguably its most feature-packed off-road buggy ever. Although based on the MP-5 and MP-6's race-winning technology, the MP 7.5 has so many re-engineered parts and design changes that it's practically a brand-new machine. We all know that Kyosho designer/factory team driver Yuichi Kanai can win with it, but how does the MP 7.5 fare in the hands of an average racer? I'm curious; aren't you?





## DATA CENTER

**VEHICLE TYPE** 1/8-scale, fuel-

powered off-road buggy

**BEST BUYER** Intermediate or advanced racers

**KIT RATINGS** (poor, satisfactory, good, very good, excellent)

**Instructions** Very good

**Parts fit/finish** Very good

**Durability** Very good

**Overall performance** Excellent

## SPECIFICATIONS

**MANUFACTURER** Kyosho

**MODEL** Inferno MP 7.5

**DISTRIBUTOR** Great Planes

**SCALE** 1/8

**LIST PRICE** \$699.99

### DIMENSIONS

**Wheelbase** 12.7 to 12.9 in. (323 to 328mm)

**Width** 12.1 in. (307mm)

### WEIGHT

**Total, as tested** 7.1 lb. (3,200g)

### CHASSIS

**Type** Channeled plate with pickup

**Material** Aluminum

### DRIVE TRAIN

**Type** Shaft-driven 4WD

**Primary** Clutch bell (13T)/spur gear (46T); internal ratio—3.31:1; final drive ratio—11.7:1

**Drive shafts (F/R)** Universal axles/dogbones

**Differential(s)** Bevel gear

**Clutch** 2-shoe

**Bearing type** Shielded bearings

### SUSPENSION (F/R)

**Type** Lower arm with adjustable upper link

**Damping** Oil-filled, coil-over shocks

### WHEELS

**Type** One-piece nylon

### TIRES

**Type** Multi-pin

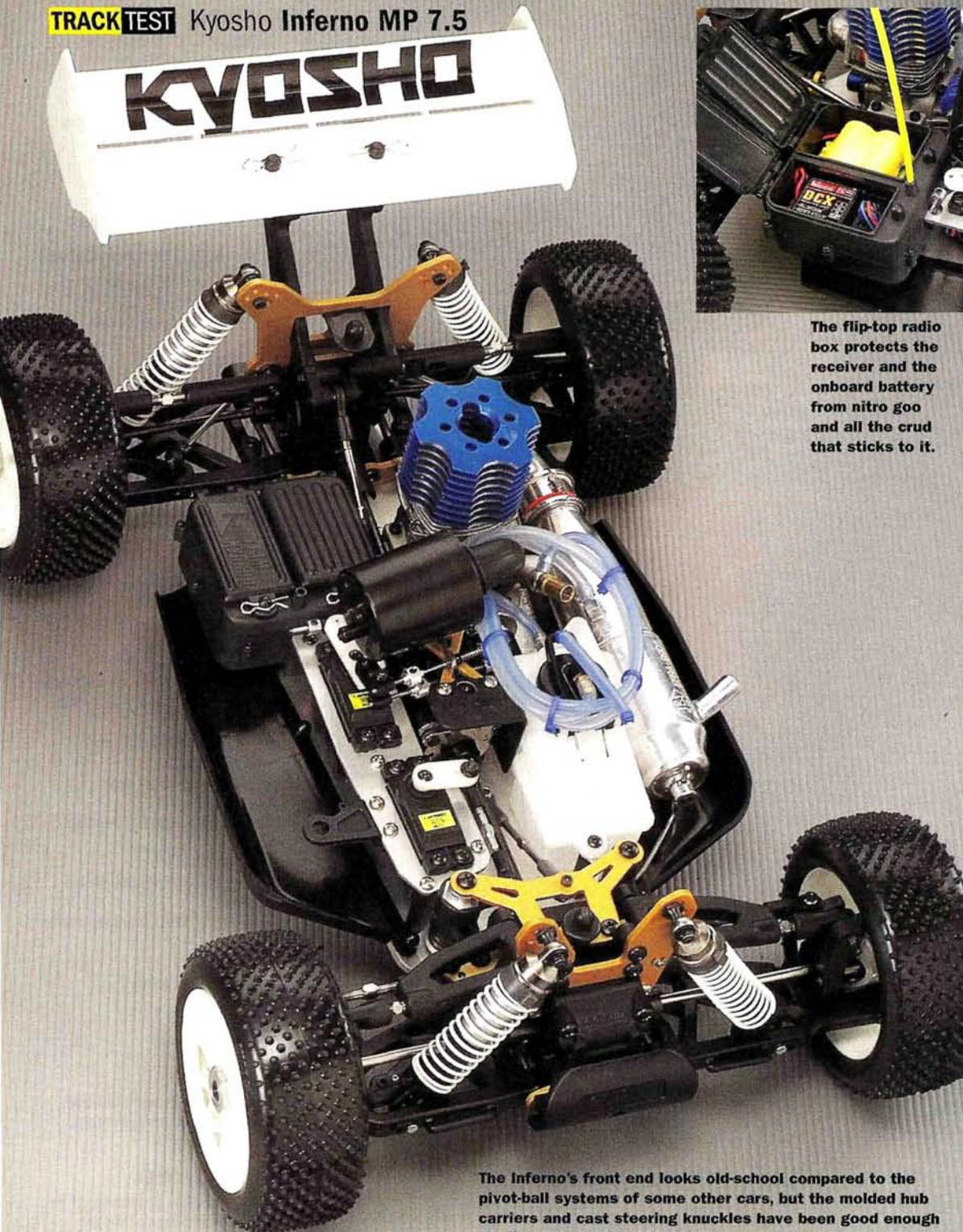
## LIKES

- Low-CG chassis and drive train.
- Excellent radio compartment.
- Rugged design.

## DISLIKES

- No turnbuckles or silicone oil for the diffs and shocks; no tire inserts.
- Clutch hardware supplied only for SG-style cranks.





The flip-top radio box protects the receiver and the onboard battery from nitro goo and all the crud that sticks to it.

## building & setup tips

The MP 7.5 comes with excellent instructions, but pay careful attention to detail when you assemble this sophisticated RC vehicle. My kit came with a couple of helpful setup sheets and a supplemental page to the instructions. I kept the supplemental page close at hand but found that all of the changes had already been updated in the instructions. Oh, well; read the supplemental page, just in case, and refer to it when necessary. Here are a few helpful tips.

**Diff fluid.** You'll need silicone diff fluid for the diffs; I used OFNA diff fluid in all three diffs: 10,000WT in front, 7,000WT in the center and 3,000WT in the rear. When you build the diffs, don't forget to install the O-rings on the pinned outdrives.

**Liquid thread-lock.** You absolutely must use liquid thread-lock on all the screws that thread into metal or are retained by nuts. Use a medium-strength thread-lock such as Loctite Blue, or a hobby-class thread-lock such as Tamiya's Thread-Lock.

**Shock fluid.** Not included, so pick up a variety of viscosities (25 through 40WT) before you start to build.

**Step 14, page 12.** Be sure to install one thick and one thin shim on each outdrive before you insert the front and rear diffs into the diff cases.

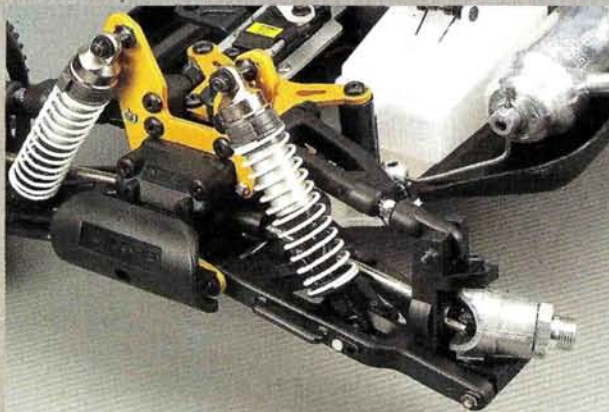
**Step 21, page 14.** Use rubber contact cement to glue the rubber brake pads to the calipers; CA glue doesn't work very well.

The Inferno's front end looks old-school compared to the pivot-ball systems of some other cars, but the molded hub carriers and cast steering knuckles have been good enough for five consecutive IFMAR titles.

**YOU'LL NEED** ■ Transmitter and receiver  
■ Throttle and steering servos ■ Receiver pack ■ Engine  
■ Starter box ■ Fuel and fuel bottle ■ Glow-plug igniter  
■ Polycarbonate-compatible paint ■ Tire glue

### FACTORY OPTIONS

- Front torque-rod set—part no. IFW-112.
- Front stabilizer set—IFW-104.
- Special aluminum radio posts—FW113.
- Rear universal swing shafts—IFW-114.
- Special main chassis (hard-anodized)—IFW-101.
- Double-disc brake—IFW-36 and IFW-134.



### SETUP

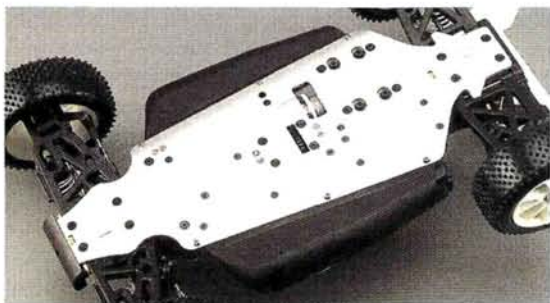
I set up the MP 7.5 according to assistant editor Greg Vogel's recommendations. I used 10,000WT oil in the center diff, 7,000WT in the front and 3,000WT in the rear. I also filled the shocks with 40WT oil in the front and 45WT in the rear. The stock tires were the only set I had, but I stuffed them with Trinity Da Bomb two-stage tire inserts for improved performance.



## KIT FEATURES

• **Chassis.** The suspension and drive train are bolted to a new, 3mm-thick, channeled-aluminum chassis that is fully countersunk and has 8 degrees of front kick-up (like its predecessor). The new chassis, however, features recesses or "blisters" under the front and rear diffs and a clutch bell to allow these components to be mounted low to reduce the center of gravity (CG). A thick torque rod is bolted to the rear bulkhead and to the main chassis, and a gold-anodized-aluminum front brace secures the front-suspension assembly and the steering bellcrank posts; both increase chassis rigidity. You could easily install an additional torque rod from the aluminum front brace to the main chassis, but the kit doesn't include the rod. I had a 3.5-inch-long Lunsford titanium tie rod and a couple of heavy-duty ball ends, so I made my own. Kyosho offers a front torque-rod set (see "Factory Options").

A compact aluminum servo tray is suspended from the chassis with three molded posts and is secured to an all-new receiver box. A molded transponder mount is provided; the mount even has a place to store the body clip that holds the transponder. The steering and throttle/brake servos are both installed with their output gears facing upward; this makes installing the steering linkage and adjusting the



The chassis is stamped for differential and clutch-bell clearance, which lets the parts sit deep in the chassis for an extra-low center of gravity.

length of the steering rod much easier. Instead of stacking the receiver and onboard battery pack on top of each other in a single receiver box as they are on the MP 6, the MP 7.5's receiver box has two roomy compartments: one for the receiver and for the onboard receiver battery pack. Each compartment has a lid that makes battery access a snap.

• **Suspension and steering.** Because of its subtle refinements and lower overall CG, the MP 7.5 is a better rough-track performer. The 4mm longer suspension arms are molded of a stiffer material and provide greater stability and more consistent handling. They pivot on large-diameter steel hinge pins



The rear suspension's long rod ends bridge much of the gap between the shock tower and hub carrier. I added Lunsford titanium turn-buckles when I built the car; it's a hassle to do it later.

secured to interchangeable suspension-arm mounts. The inner front and rear gold-anodized-aluminum suspension arm mounts are stationary, but altering the molded outer suspension mounts allows you to achieve two front caster angles and three rear toe-in angles. The kit includes the optional suspension-arm mounts that allow you to make these adjustments. Additionally, setscrews threaded into the suspension arms provide down-stop adjustment.

New, gold-anodized shock towers offer many shock-mounting options, and the rear shock tower also has several inner camber-rod-mounting locations for greater tuning versatility. The new, large-capacity Teflon-coated shocks are among the smoothest I've built. They have dual silicone O-ring seals and rubber diaphragms, and the pistons are firmly secured to the shock shafts with locknuts. The shocks also feature rubber boots to keep dirt away from the shafts and seals, and front and rear soft, black coil springs and a variety of clip-on spring preload spacers are also provided.

Stout-looking cast steering knuckles pivot on bushings inside the newly designed front hub carriers, and upper wishbones with threaded rods link to the front hub carrier. Unfortunately, the kit does not include adjustable tie rods, so I installed a set of large-diameter Lunsford titanium tie rods.

The new rear hub carriers have optional mounting holes for both the lower hinge pins and the upper links, so the hubs can be raised and lowered without affecting the suspension geometry. Spacers on the outer hinge pins allow the rear hub carriers to be moved forward or backward to make subtle wheelbase adjustments. A thick, adjustable rear swaybar is provided, and although the front end has the necessary mounting provisions, a front swaybar is not included.

The MP 7.5 features dual-bellcrank steering with a gold-anodized aluminum drag link and a heavy-duty adjustable servo-saver that's built into the right bellcrank. The bellcranks pivot very smoothly on bushed aluminum posts that are supported from above and below with machine screws. Threaded

## Airtronics M8 transmitter and Hitec DCX receiver

I fine-tuned the MP 7.5's handling precisely with my M8 transmitter, which is always a pleasure to use thanks to its easy-to-understand LCD screen. Based on what I see at the many racing events I cover, the M8 is the top choice of pro drivers.

I also used a Hitec DCX 27MHz receiver. The dual-conversion DCX has been just about glitch-proof, and that's priority number one when operating a heavy, expensive nitro car.

## Airtronics 94258 steering and throttle servos

To steer this 7-pound buggy, heavy-duty servos are required to take the vibration caused by the high-revving 3.5cc engine. I installed a pair of 94258 high-torque/high-speed servos. With 145 oz.-in. of torque and a transit speed of 0.09 second, these servos are ideal for hardcore 1/8-scale off-road racing.

## MDP Super Pack 1000

A 5-cell, 6V receiver pack to power your onboard electronics is required. I needed high-capacity cells to power the two high-torque servos, and MDP 1000mAh NiMH cells fit the bill perfectly.

## O.S. .21 RZ-99v (P) engine

I wanted a powerful engine, but I also needed reliability, so I chose an O.S. powerplant. This thing is an absolute powerhouse, yet it's extremely user-friendly. If you choose to install this engine, be sure to order the pilot-shaft (SG-style) model.

## O'Donnell 25-percent-nitro fuel

I used 25 percent-nitro fuel during the testing. Many top-name racers rely on O'Donnell fuel at major races, so I thought it would be good enough for my Inferno. Never doubt a pro driver!

## RB 9863 pipe and manifold

Instead of a silicone coupler and tie wraps to secure the pipe to the manifold, three small springs hold the RB components together. A silicone gasket prevents the exhaust gases from leaking at the juncture, and the setup is just about bomb-proof.

## THE COMPETITION

|                       | CHASSIS | PIPE/MANIFOLD    | CLUTCH | BRAKE DISC | BEARING TYPE   | STREET PRICE* | REVIEWED |
|-----------------------|---------|------------------|--------|------------|----------------|---------------|----------|
| Kyosho Inferno MP 7.5 | 3mm     | Not included     | 2-shoe | Steel      | Metal shielded | \$479         | 7/01     |
| Mugen MBX-XR Works    | 3.25mm  | Not included     | 3-shoe | Steel      | Rubber sealed  | \$565         | 5/01     |
| OFNA MBX-R2           | 3mm     | Tuned/round port | 3-shoe | Fiber      | Rubber sealed  | \$259         | 7/01     |
| TTR EB-4              | 3mm     | Not included     | 2-shoe | Steel      | Rubber sealed  | \$418         | 4/00     |

Category is too large to list all competitive vehicles. \*Approximate; price varies with dealer. None of the kits include engines.

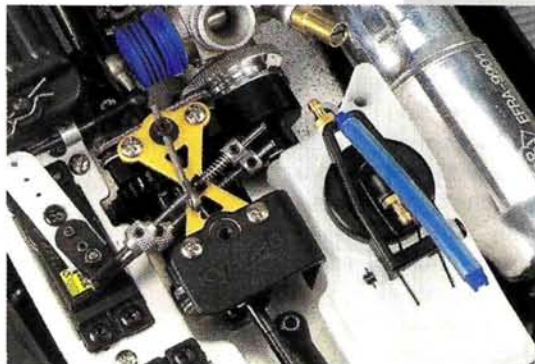


## TRACK TEST Kyosho Inferno MP 7.5

rods with captured ball ends link the steering system. As with the camber rods, you must unfasten one end of the steering links to adjust toe-in. I'm glad I replaced mine with turnbuckles.

• **Drive train.** The low-CG drive train is all new. Its most notable features are the compact diff cases and bulkheads and smaller ring gears that allow the diffs to be mounted lower on the chassis. All three diffs feature internal steel bevel and spider gears for greater strength. The front and rear diff cases are closed off with small ring gears, while the center diff has a new one-piece steel spur gear. The diffs are completely sealed with rubber O-rings and

**Two knurled knobs make it easy to adjust brake bias. Note the splashguard that keeps fuel away from the front brake disc. Fuel contains oil; oil and brakes don't mix (well, duh ...).**



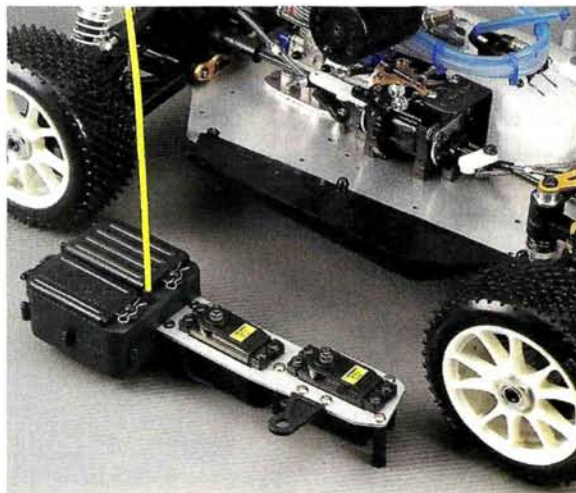
gaskets to allow the use of silicone diff oil. Unfortunately, the kit does not include the necessary oil, so be sure to pick some up before you start to build.

Thick steel dogbones transfer power to the diffs and the rear wheels, while universal axles drive the front wheels. Smooth-spinning shielded bearings are included for the entire drive train (and wheels), and new 17mm aluminum wheel hubs accept standard 1/8-scale buggy hoops. A dual-disc brake system provides stopping power with 2mm-thick steel rotors and brake pads with rubber shoes. An ingenious, molded disc-brake holder mounted on the chassis directly under the brake system has small tracks for each rotor to prevent vibration. Additionally, a molded splashguard secured to the gold-anodized aluminum disc-brake brace prevents the brake discs from being doused with fuel during rushed pit stops.

• **Body, wheels and tires.** The MP 7.5 comes with a complete set of soft multi-pin tires and cool-looking split-spoke wheels. Unfortunately, the kit does not include foam tire inserts. The MP 7.5 also includes a sharp-looking new body shell with new decals. I'm an absolute hack with a paint can, so I picked up a custom-painted Ultimate Hobbies Elite MP-6 body; with some creative trimming, this body will actually fit most 1/8 chassis.

• **Engine accessories.** A new 2-shoe clutch, flywheel, clutch nut, clutch bell and bearings are included to install the engine (not included). The clutch assembly is designed for SG-style (pilot shaft) crankshaft engines only. The kit does not include a pilot-shaft-style clutch nut for installing standard (non-pilot-shaft) engines, so select your engine carefully. The engine is mounted 3mm lower than on the previous model, thanks to the newly designed engine mounts and the recess on the chassis directly under the clutch bell.

All the necessary throttle and brake linkages, return springs, linkage stops and knurled knobs to adjust front and rear brake bias are included. Also noteworthy is the new, smaller, 120cc fuel tank equipped with a spill-catch that collects the spilled fuel on the



**Seven screws hold the radio box/servo-tray assembly, which can be removed intact for drive-train access and cleaning.**

tank and sends it down a tube and out through the bottom of the chassis.

### PERFORMANCE

I was eager to get the MP 7.5 to the Crystal Park Speedway in the Crystal Park Casino Hotel park-

ing lot in Compton, CA. The facility features a beautiful, permanent on-road and a brand-new off-road track; both are large enough to accept .21-powered RC vehicles. The off-road track was under construction, but the track crew not only allowed me to use it but also watered it down for me.

After I had warmed up the engine for a few laps, I grabbed a finger full of throttle. Thanks to the O.S. powerplant's massive torque, the MP 7.5 accelerated ferociously, but the car remained very easy to manage. The stock tires provided excellent grip on the hard-packed dirt surface, and that allowed me to drive the buggy with precision.

The MP 7.5 has a slight push under power, but let off the gas momentarily, and it dives into the tightest corners. The car remains composed as it exits corners under hard acceleration, so it's incredibly easy to drive. The MP 7.5 flew straight and true over the jumps, but it bottomed out severely when it landed flat off the larger jumps. It ran out of "legs" just slightly past the straightaway's halfway mark—an indication that it was undergeared for this particular track. No problem; I'll pick up a set of stiffer springs and a larger, 14-tooth clutch bell the next time I'm at the hobby shop.

### THE VERDICT

Overall, I'm very impressed with the MP 7.5's performance—in fact, so impressed that I can easily overlook that the kit does not include the necessary fluids for the diffs and shocks and the inserts for the tires. These items are left to the preference of the racer, but not to include turnbuckles ...? Well, let's just leave it at that. Other than these few small gripes, I found the MP 7.5 a solid performer, and any car that makes me look like a good driver has to be pretty dialed. Any driver who's thinking about entering 1/8-scale 4WD buggy racing should put the Kyosho Inferno MP 7.5 on the top of his "must see" list. ■

### SOURCE GUIDE

**AIRTRONICS**  
1185 Stanford Ct., Anaheim, CA  
92805; (714) 978-1540;  
www.airtronics.net.

**GREAT PLANES  
MODEL DISTRIBUTORS**  
P.O. Box 9021, Champaign, IL  
61826-9021; (800) 682-8948.

**KYOSHO**  
Distributed by Great Planes.

**LUNSFORD RACING**  
2500 Three Lakes Rd., Ste. A,  
Albany, OR 97321; (541) 928-  
0587; www.lunsfordracing.com.

**O'DONNELL RACING**  
10702 Hathaway Dr., #2, Santa Fe  
Springs, CA 90670;  
(562) 944-9671

**OFNA/MDP INC.**  
22692 Granite Way, Ste. B,  
Laguna Hills, CA 92653; (949)  
586-2910; www.nitrohouse.com.

**RB CONCEPTS**  
See OFNA/MDP.

**O.S.**  
Distributed by Great Planes.

**ULTIMATE HOBBIES**  
2378 N. Orange Mall, Orange, CA  
92665; (714) 921-0322.









# HPI RS4 Pro 3

by Peter Vieira

Two brands deserve credit for the late-'90s touring car explosion. Tamiya, of course, started it all with the TA01-chassis cars, beginning with the Nissan Skyline. The narrow-chassis, 4WD concept caught on slowly at first but jumped into overdrive when HPI released the first-generation RS4. HPI's vision made the TA01 look like yesterday's technology (and with Manta Ray-based buggy mechanicals, it was), and suddenly, touring car racing got serious. The RS4 Pro followed, firmly establishing dual-belt drive as the de facto standard drive train for tourers, and the Pro 2 brought further refinements to the RS4 formula. But by the time the Pro 2 rolled out, HPI was hardly alone in the pro touring scene; the competition from Team Losi, Corally, Yokomo, Kyosho, Kawada and others was intense, and after the initial hoopla of its release, the Pro 2 seemed like just another tourer.





So, almost as soon as the Pro 2 debuted, HPI started work on an all-new, performance-first design in earnest. The result is the RS4 Pro 3—a pro touring car that shares nothing with the Pro and Pro 2 except its name. It is arguably the most strikingly different and original design to hit touring since, well, since the first RS4—so different, in fact, that we're not sure whether it will work, but there's one way to find out.

## DATA CENTER

**VEHICLE TYPE** 1/10-scale 4WD  
electric touring car

**BEST BUYER** Racers, performance-minded electric enthusiasts

**KIT RATINGS** (poor, satisfactory, good, very good, excellent)

**Instructions** Good

**Parts fit and finish** Very good

**Durability** Very good

**Overall performance** Very good

## SPECIFICATIONS

**MANUFACTURER** HPI

**MODEL** RS4 Pro 3

**SCALE** 1/10

**STREET PRICE** \$225

### DIMENSIONS

**Wheelbase** 10.2 in. (258mm)

**Width** 7.4 in. (188mm)

### WEIGHT

**Total, as tested** 54.4 oz. (1,542g)

### CHASSIS

**Type** Molded semi-tub

**Material** Plastic composite

### DRIVE TRAIN

**Type** Dual-belt 4WD

**Primary** 35T pinion/116T spur gear

**Drive shafts (F/R)** MIP CVD universals

**Differentials** Ball-type with graphite composite outrdrives

**Bearing type** Rubber-sealed ball bearings

### SUSPENSION

**Type (F/R)** Lower A-arm

w/turnbuckle upper camber link

**Damping** Plastic, threaded-body, coil-over shocks

### WHEELS

**Type** HPI R5, one-piece spoked

### TIRES

Not included

## LIKES

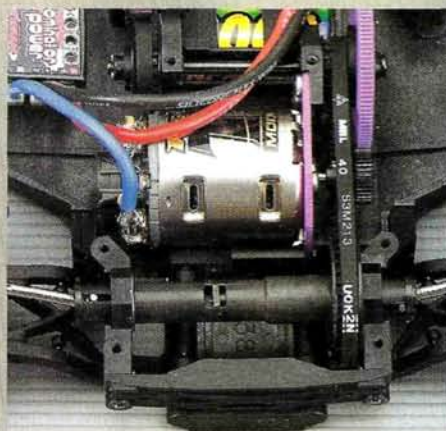
- Accepts stick or side-by-side packs—no need for saddles.
- Low-profile drive train.
- Exceptional handling.
- Includes rubber-sealed bearings and MIP CVDs.

## DISLIKES

- Offset spur gear requires long-shank pinions.
- Stock setup is a bit soft for mod racing.
- Assembly process could be smoother.

# HPI's new sedan breaks all the rules





Now that's a wide differential. Note the reinforcing rings on the outdrives and the "window" in the long outdrive; that's where the diff nut and its plastic holder are installed.

## building & setup tips

As any HPI devotee will tell you, all the RS4 vehicles go together very similarly, as they share many parts. Not so with the Pro 3! The all-new RS4 builds nothing like the previous machines, so be on your toes as you assemble it, and keep the following in mind ....

**Step 2.** Leave the Z578 screws about two turns loose; it makes it a lot easier to install the A356 hinge-pin block in step 4. Just remember to tighten the screws after you've completed step 4!

**Step 5.** As illustrated, you might think the rear suspension arms should be installed between the 2mm and 1mm arm spacers, but the spacers should be stacked in front of the arms. There's no harm if you goof it up; you'll just have a shorter wheelbase if you do.

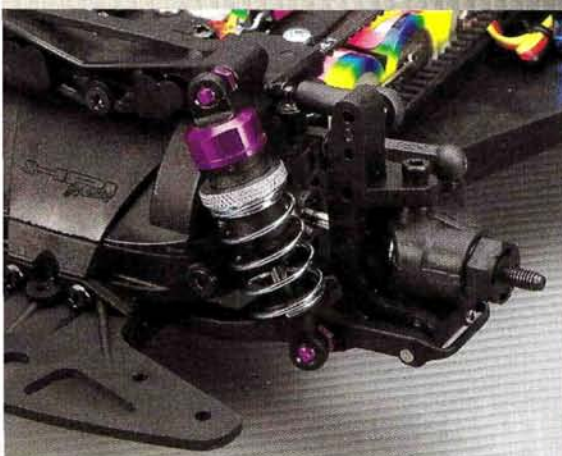
**Step 6.** Two things here: use thick CA on the pulley flanges, and use the stuff sparingly so that it doesn't flow into the pulley teeth. Make sure you assemble the diff parts in the proper sequence. The thrust spring and its washers should be dropped into the long outdrive before the diff nut and its sliding holder are installed.

**Step 10.** Instead of waiting until step 28, install the ball studs for the shocks now before you install the rear body mount.

**Steps 13 and 22.** These steps call for plastic strengthening rings to be installed over the outdrives. Small nubs in the rings fit into dimples in the outdrives to hold the parts in place. I found marking the rings over the nubs and drawing a line on the outdrive through the dimple with a permanent marker helped me to line the parts up.

The setscrews that hold the hinge pins tend to back out during use, but they strip their holes easily if you try to sock them down. File a flat spot (not too deep!) on the hinge pins to match the location of the setscrew. This will index the hinge pin to the screw so it doesn't fall out, instead of relying on the screw's pinching force.

**Step 18.** Install the shock-mounting studs in the suspension arms before you install the front bumper. If you wait until step 27 to install the studs, you'll find it nearly impossible to turn the included box wrench with the bumper in the way.



Setscrews secure the hinge pins in the capped suspension arms. The tall extensions on the hubs feature stacked holes that dramatically affect roll center when moving the camber link from one location to the next.

**YOU'LL NEED** ■ Transmitter and receiver  
■ Steering servo ■ Motor ■ Electronic speed control  
■ 6-cell battery pack ■ Charger ■ 190mm touring car body  
■ 24mm touring car tires and inserts ■ Tire glue

**FACTORY OPTIONS** ■ Front one-way differential—part no. 72291 ■ Aluminum center one-way pulley—72292 ■ Heat-sink motor plate—72293 ■ Purple MIP CVDs (pair)—80820 ■ Pro linear tuning springs, various part nos.



## KIT FEATURES

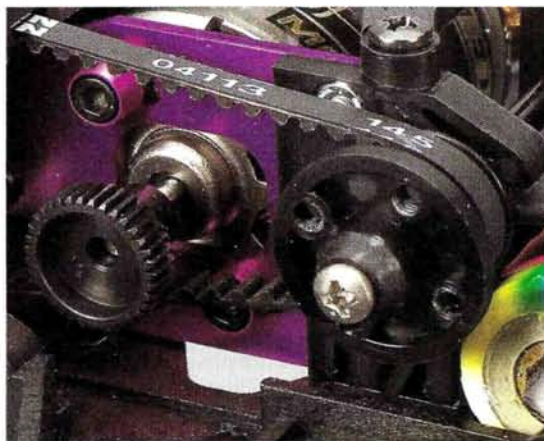
• **Chassis.** The Pro 3 is HPI's first molded-chassis TC (but not its first molded-chassis vehicle; that honor belongs to the RS4 MT). The arrowhead-shaped chassis plate takes a page from off-road design with angled-up sides (which increase cornering clearance) and a centrally located battery trough. Unlike an off-road car, the Pro 3 chassis is slotted to hold 6 cells, so battery placement is fixed, and instead of having the steering servo mounted centrally, the Pro 3 puts it on the right side of the chassis. The battery-pack placement is a big deal because it reduces the Pro 3's polar moment of inertia.

Openings beneath the motor let cooling air pass through but are not meant to let the motor hang low in the chassis; a web of material prevents this, and since the motor plate allows you to slide the motor fore and aft (not up and down) to adjust gear mesh, removing the web won't let the motor sit lower anyway.

The rear suspension parts are attached to a mold-in "tail," while the front of the chassis is an intricately molded bulkhead that is attached separately. Short braces link the front and rear suspensions and steering assemblies to the chassis, but the battery isn't braced except by the battery hold-down, and that has only a minimal stiffening effect. As measured by the two-handed-twist method, the assembled Pro 3 is alarmingly flexible. Is that part of HPI's master plan? We'll see.

• **Drive train.** Like the RS4 Pros that preceded it, the Pro 3 is driven by two belts. But this is a dual-belt system like none you've ever seen, and to understand its benefits, you must first consider the Pro's and Pro 2's 2-belt setups. Both cars had the belts closely side by side on a common layshaft, and the belts ran along the center of the chassis. In this configuration, the layshaft had to be above the motor so that the belts could clear the motor can. This raised the center of gravity and made the center of the chassis "dead space" because of the need for belt clearance. The Pro 3 design solves these problems by using incredibly wide differentials with deeply offset layshaft and diff pulleys. The wide layshaft is in front of the motor, so the belts straddle it instead of being routed overhead; the rear belt passes in front of the motor, and the front belt is routed down the chassis' left side. As a result, the spur gear is now very low on the chassis, and there's room for the battery pack down the center of the chassis.

The super-wide ball differentials (88mm from outdrive to outdrive) are constructed of



The rear layshaft pulley is stacked beneath the spur-gear mount and is dramatically lower than previous RS4s. I added the socket-head motor screws; Phillips heads are standard. Left: the Pro 3's plated MIP CVDs look as



though they belong to an RS4 Mini, not a 190mm touring car. The dogbone end is about the same length as the stub axle!

graphite/plastic composite, and indexed diff rings prevent slippage while snap-on rings prevent the outdrives from spreading. The rear diff rides in eccentric bearing housings like the previous RS4's, but the new parts are hex-shaped; the tightness of the rear belt is determined by which flat faces upward when you drop the eccentrics into the rear transmission case. The front belt is tensioned by an adjustable roller. In the RS4 tradition, the 36-tooth diff pulleys use glue-on flanges; couple them with 16-tooth layshaft pulleys, and you arrive at a 2.25:1 transmission ratio. A 116-tooth spur gear is included and is mated to the layshaft by means of a plastic hub. I don't usually care much for plastic hubs because they often have a bit of runout, but the Pro 3's spin true, so no gripes here. A 35-tooth steel pinion gear is also part of the package, and it's one of HPI's long-shank models. The extra length is required to make up for the width of the pulley between the spur gear and the motor plate; standard pinions barely reach the spur.

HPI partnered with another three-letter company—MIP—to complete the Pro 3 drive package. Midget-proportion CVDs span the short distance from the differentials to the drive hubs and feature a tasteful chrome plating.

Did I mention that rubber-sealed bearings are included for all those rotating parts? I guess I just did.

• **Suspension and steering.** If you're looking for an

## Airtronics M8 transmitter

The M8 is the easiest computer radio to set up, thanks to its logically designed LCD screen. You don't have to scroll through functions or modes. Everything you need is on the screen at all times; you need only press the arrow key until the cursor lands on the function you wish to adjust, then dial it up or down with the "+" or "-" buttons. I only wish Airtronics offered a version without the offset wheel, as I prefer traditional wheel-above-your-thumb ergos.

## LRP Quantum ESC and Phazer receiver

LRP made a big splash at the '98 IFMAR On-Road Worlds with prototype Quantum test mules, and now the production versions have finally arrived. The tiny Quantum is a giant departure from the usual LRP speedos; there aren't any exposed FET tabs, and the entire unit is smaller than the Phazer receiver. I should know; I just installed a Phazer alongside the Quantum.

## Hitec digital steering servo

We had good luck with the new Hitec digitals when we ran them in last month's truck shootout, so I gave them a shot in the Pro 3. There's enough holding power on tap to hold a tight line at full throttle on a high-traction track, precise response to wheel input and lazer-fine centering.

## Reedy-matched Sanyo 3000 NiMH cells

With 3000 milliamps of Main-making power, it's hard not to pick these cells for any race machine—especially when they're matched by 20-something-time IFMAR world champion motor-and-battery guy Mike Reedy.

## Reedy Ti Modified 12-double motor

The Reedy cred is invaluable, but the Ti motor is a lot more than a decal. Next-generation C4 magnets are claimed to be stronger than previous types, and the new 1.4mm Ti can design has a cooler-running vent pattern and open-style endbell for increased ventilation. Reedy's brush-damping system has been improved and the armature has been redesigned for maximum torque.

THE COMPETITION<sup>TM</sup>

|                        | DRIVE TRAIN      | CHASSIS                  | DIFFS (F/R)  | SHOCKS                   | BEARING TYPE           | STREET PRICE** | REVIEWED     |
|------------------------|------------------|--------------------------|--------------|--------------------------|------------------------|----------------|--------------|
| Associated TC3 Factory | Shaft            | Plastic composite        | Ball         | Aluminum                 | Teflon sealed          | \$225          | 02/00        |
| <b>HPI RS4 Pro 3</b>   | <b>Dual belt</b> | <b>Plastic composite</b> | <b>Ball</b>  | <b>Plastic composite</b> | <b>Rubber sealed</b>   | <b>\$225</b>   | <b>05/99</b> |
| Schumacher Axis 2      | Dual belt        | S1 woven composite       | Ball         | Plastic                  | Metal shielded         | \$308          | 12/00        |
| Tamiya TA04 Pro        | Dual belt        | Fiberglass               | Ball         | Plastic                  | Rubber sealed          | \$219          | 03/01        |
| Yokomo MR4-TC Pro WRC  | Dual belt        | Plastic composite        | One-way/ball | Aluminum                 | Shielded/rubber sealed | \$299          | 04/01        |

\*Category is too large to list all competitive vehicles. \*\*Approximate; price varies with dealer.



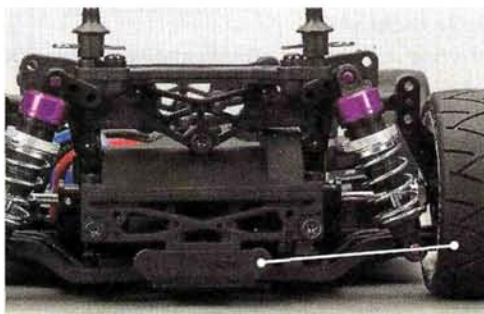
## TRACKTEST HPI RS4 Pro 3

oasis of tradition in the Pro 3, it's in the steering. You'll find a tried-and-true, dual-bellcrank setup with a servo-saver built into the right crank (and, as usual, it's virtually impossible to adjust once the car has been assembled). Steel-turnbuckle tie-rods are standard, and new, large-diameter rod ends lend extra strength to the setup.

The suspension components, including the shocks, are all new. The plastic-body dampers are finely threaded to accept knurled-aluminum preload adjusters with internal O-ring "grippers," and bottom-loaded double O-ring seals keep the included 30WT silicone shock fluid inside the shock where it belongs. New to the Pro 3 is a bladder-less, "Variable Volume" foam volume-compensation system much like those used by Associated and pioneered by Schumacher.

Five Teflon piston options are included to adjust damping force, and silver 154-rate springs are standard. These are HPI's next-to-softest springs, and the damping offered by the included fluid and use of "medium" no. 3 pistons is quite light. According to HPI, the central battery placement allows the Pro to run with softer settings (on a given track) than a car with a conventional saddle pack would require.

The Pro-3's mega diffs caused clearance problems in the suspension department: conventional "flat" suspension arms would



To clear the differential pulleys, HPI's designers had to be creative with the suspension arms. Although the arms appear to be angled up sharply, the hinge-pin locations reveal that the effective arm angle is very shallow.

have interfered with the diff pulleys. HPI neatly solved the problem with "dropped" arms that are easier to show than to explain (see the pictures). Rear toe can be set at 1 or 2 degrees by replacing the forward hinge-pin mounting block, and the front suspension's hinge-pin brace can be flipped for zero or 2 degrees of caster. Combined with the included 6- and 8-degree front hub carriers, settings ranging from 6 to 10 degrees (kit stock) are possible.

The hub carriers themselves are unusually tall, with three stacked positions for the upper camber-link location. E-clips are notably absent; all the Pro 3's hinge pins are either captured or secured by setscrews.

• **Body, wheels and tires.** You won't find a body or tires in the Pro 3 box, but you will get a set of HPI's latest 24mm R5 rims in white. To finish off my Pro 3, I kept it all in the family with HPI's new Yokohama Advan belted tires, red "medium" inserts and an HPI Nissan Silvia body. So why is a Dodge Stratus shown in the action shots? That's World Champion Atsushi Hara's Hot Bodies

## Performance

George built his own Pro 3 while I built the photo car shown here, and we decided he should give it a good SoCal Raceway workout and get some feedback from track regulars. Here's how it went down ...



### George M. Gonzalez—senior West Coast editor

After I built the Pro 3, I had some concerns about its design. First, the chassis flexes quite easily compared with most other race-bred touring chassis; and I thought that the plastic outdrives would not last very long before the axle drive pins started to wear away at the material. After running the car more than a dozen times and letting a few other local racers drive it, my concerns were lifted.

The Pro 3 did not exhibit any bad handling traits on the track; in fact, it is the first touring car I have driven that does not require frequent visits to the tweak board. The car made equal-radius turns under power in both directions, and the chassis was never tweaked even after jumps over steel corner markers and crashes into the boards (and into other cars). And, after running 13 battery packs and three motors through the Pro 3, the plastic outdrives showed no signs of wear.

The Pro 3 has plenty of on-power steering but slightly less steering coming out of the corners, and that makes spin-outs almost impossible. The Pro 3 transitions very quickly without feeling twitchy in any way. I zigzagged through traffic with relative ease, and the Pro 3 kept me in the fast line at all times. It accelerates quickly out of the hole and has no problems staying in the front row, thanks to its lightweight and efficient drive train. Out of the box, it is an awesome stock racer, but I think a stiffer setup would help when running modified power; as is, the Pro 3 is less easy to drive with hotter winds, but that's to be expected. In my opinion, the Pro 3 is a dialed-in stock-class racer, but a stiffer chassis and suspension setup will help it cope with the G-forces that low-turn modified motors dish out.



### Art Diaz

The car transitions very well and has a great deal of on-power steering. It does have a slight push coming out of sharp corners, but perhaps that's because I'm used to running a car with a one-way. I tap on the brakes to get the car's rear end to swing around, which helps to negotiate sharp corners. When I tapped the Pro 3's brakes, it slowed down but did not initiate a slide. I was impressed with how the car responded to the switchback turns. It transitioned very well from right to left considering it's a dual-diff car!



### Steve Weiss

The Pro 3 seemed easy to drive; it was fairly predictable and almost "lazy." A stiffer chassis and perhaps a one-way will help give it some extra steering, but overall, it wasn't bad, considering the box-stock setup. The Pro 3 didn't feel tweaked and didn't respond erratically to different throttle inputs like so many other cars do, so overall I could say that the car did fairly well. In my opinion, the car seems to be set up for someone who is just getting started in racing. More experienced racers will look for ways to make the car a little more responsive.



### Andrew Swanson

The Pro 3 is definitely more dialed out of the box than my car was! It was easy to drive, and it's perfect for someone who doesn't like to fuss around with the suspension setting.

Stratus! The HPI guys sent it for static shots. Hope they don't mind that I ran it...

## THE VERDICT

Judging from what George, Art, Steve and Andrew had to say, the Pro 3's unconventionally flexible chassis, unique drive-train layout and new-think suspension geometry represent the latest formula for racetrack success. To be certain, it is a car that must be driven to be appreciated. No one will pick it and say, "Wow, that's stiff," or stop by your bench to look at its pretty hop-up parts (it doesn't have any). The Pro 3 is built as a no-nonsense, get-the-job-done racecar, not a fully dressed custom glamour ride (nothing against fully dressed custom glamour rides), and although unconventional, it works. ■

## SOURCE GUIDE

**AIRTRONICS**  
1185 Stanford Ct., Anaheim, CA  
92805; (714) 978-1895;  
[www.airtronics.net](http://www.airtronics.net)

**HITEC RCD INC.**  
12115 Paine St., Poway, CA  
92064; (858) 748-6948;  
[www.hitecrod.com](http://www.hitecrod.com)

**HOT BODIES**  
11318 South St., Cerritos, CA  
90703; (562) 468-1121;  
[www.hotbodiesonline.com](http://www.hotbodiesonline.com)

**HPI RACING**  
15321 Barranca Pky., Irvine, CA  
92618; (949) 753-1099;  
[www.hpiracing.com](http://www.hpiracing.com)

**LRP ELECTRONIC**  
Distributed by  
Associated Electrics  
3585 Cadillac Ave., Costa Mesa,  
CA 92626-1403; (714) 850-9342;  
[www.rc10.com](http://www.rc10.com);  
[www.teamassociated.com](http://www.teamassociated.com)

**MIP**  
830 W. Golden Grove Way,  
Covina, CA 91722; (626) 339-  
9007; [www.miponline.com](http://www.miponline.com)

**REEDY MODIFIEDS/TEAM ASSOCIATED**  
3585 Cadillac Ave., Costa Mesa,  
CA 92626; (714) 850-9342;  
[www.teamassociated.com](http://www.teamassociated.com)









# Tamiya TGR

Big T gets serious about super touring by George M. Gonzalez

Tamiya is well known for designing innovative and true-to-scale RC vehicles, but lately, its engineering efforts have seemed to be focused more on the competitive end of the RC spectrum. As a result, Tamiya recently released several vehicles that not only look good, but they have the necessary ingredients for serious competition, too. The subject of this Track Test—the Tamiya TGR—happens to be one of them. One look at its low-slung, black-on-black chassis is all it takes to realize that this new, super-class entry is designed to do one thing: intimidate the competition. As an editor of *Radio Control Car Action*, however, I've learned never to judge a book by its cover, so off to the track I went. Does the Tamiya TGR have what it takes to be a predator in the growing super touring class? Let's find out.





## DATA CENTER

**VEHICLE TYPE** 1/8-scale "Super" class .15-powered competition chassis kit

**BEST BUYER** Intermediate to advanced racers and general nitro enthusiasts

**KIT RATINGS** (poor, satisfactory, good, very good, excellent)

**Instructions** Excellent

**Parts fit/finish** Very good

**Durability** Very good

**Overall performance** Very good

## SPECIFICATIONS

**MANUFACTURER** Tamiya

**MODEL** TGR

**SCALE** 1/8

**STREET PRICE** \$325

### DIMENSIONS

**Wheelbase** 11.8 in. (300mm)

**Width** 8.875 in. (225mm)

### WEIGHT

**Total, as tested** 74.2 oz. (2,103g)

### CHASSIS

**Type** Double deck

**Material** Aluminum/graphite

### DRIVE TRAIN

**Type** Shaft drive 4WD

**Transmission** 2-speed

**Primary** Clutch bell/spur gear

**Final drive ratio** 8.8:1 first gear; 6.5:1 second gear

**Drive shafts** Dogbones

**Differentials** Bevel gear

**Bearing type** Rubber-sealed

### SUSPENSION (F/R)

**Type** Lower A-arm with telescoping upper link

**Damping** Coil-over, oil-filled aluminum shocks

### WHEELS

**Type** One-piece plastic

### TIRES

**Type** High-grip belted slicks with molded inserts

### ENGINE AND ACCESSORIES

**Engine** Tamiya FS-15RB

**Clutch** 2-shoe

**Carb** Slide

**Exhaust** Aluminum header and composite tuned pipe

**Fuel capacity** 100cc

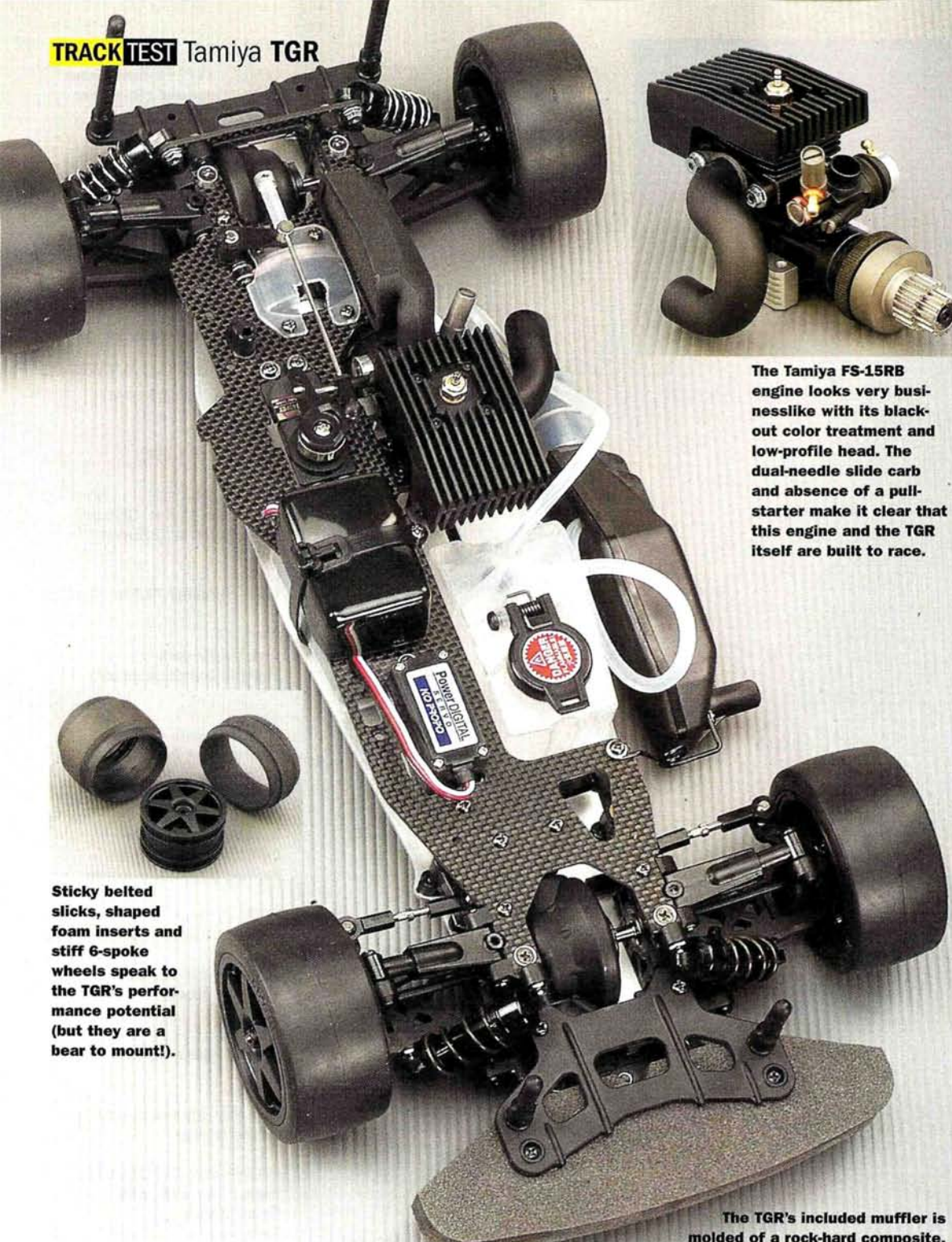
## LIKES

- Low-profile design.
- 2-speed tranny and racing engine included.
- Great handling, right out of the box.
- High-quality parts.

## DISLIKES

- Tires are difficult to mount.
- Camber adjustments require some disassembly.





Sticky belted slicks, shaped foam inserts and stiff 6-spoke wheels speak to the TGR's performance potential (but they are a bear to mount!).



The Tamiya FS-15RB engine looks very businesslike with its black-out color treatment and low-profile head. The dual-needle slide carb and absence of a pull-starter make it clear that this engine and the TGR itself are built to race.

## building & setup tips

I didn't have any problems building the TGR, thanks to its excellent instructions and precise parts fit. The TGR is a racing vehicle that must be carefully assembled to ensure maximum performance. Here are a few useful tips to make building and driving it even more enjoyable.

**Step 8, page 7.** The illustration shows the 6mm ball connector improperly installed on the left steering arm (bellcrank). The ball connector should be mounted under the steering arm, not above it as shown in the previous step. Just ignore the goof.

**Step 19, page 11.** Be careful when you thread the 3mm grub screw into the stabilizer mounts. Overtightening the grub screw may strip the plastic.

**Liquid thread-lock.** Apply liquid thread-lock to the following screws and fasteners: the four 3x10mm cap-head screws that secure the engine to the engine mounts; the four 3x8mm flat-head screws that secure the engine mounts to the chassis; the pilot shaft (MC17) that secures the flywheel; and the two, 3mm flange nuts that secure the 5mm ball joints on the rear shock tower.

**Receiver mounting.** The instructions direct you to install the receiver on top of the graphite radio plate above the onboard battery pack and secure it to the chassis with a tie-wrap (a flexible nylon receiver cover is included to protect the receiver). To keep the low-CG theme going, I decided to mount the receiver on the side of the throttle/brake servo underneath the graphite top plate instead. A sidebar on page 18 of the instructions shows you how to install small receivers in this alternative location.

**Tire mounting.** There's no easy way around this one; getting the belted tires and their firm inserts onto the rims is a bear. I don't even have a tip for you! It takes sheer strength to get those sneakers on, but they do fit.

### YOU'LL NEED

- 2-channel radio system ■ Steering and throttle servos ■ Fuel ■ Fuel bottle ■ Glow-plug igniter
- Tire glue ■ 300mm-wheelbase body ■ Starter box ■ Receiver pack ■ Thread-locking compound

### FACTORY OPTIONS

- TR-15T upgraded brake disc—part no. 53171
- 4WD front one-way diff unit—53200
- TM-2 race muffler—41022
- Fuel filter—41005

The TGR's included muffler is molded of a rock-hard composite, and a unique manifold is used to accommodate the TGR's unconventional engine placement.





## KIT FEATURES

• **Chassis.** The TGR's narrow, 2.5mm-thick duralumin chassis resembles the chassis plates that are used on 1/8-scale, .21-powered on-road vehicles. It places the weight of all the drive-train components and onboard electronics closer to the chassis centerline for improved handling. The screwholes are completely countersunk, so all the screws can be mounted flush with the chassis, and openings under the front and rear diff cases, the fuel tank, engine, swaybars and 2-speed allow these components to be mounted with the lowest possible center of gravity (CG).

The long and narrow, 2mm-thick graphite upper deck is mounted on the front and rear suspension assemblies and neatly houses the onboard electronics. Graphite is lighter and more rigid than aluminum and plastic, and that makes it a welcome addition to any racecar. A racing-style front bumper with a urethane body protector and a molded transponder mount are also on the list of hot features.

• **Drive train.** The TGR's shaft-drive system is similar to the drive train used on the TGX-Mk. 1, but the TGR has lighter, more compact diff cases and smaller, cast-alloy ring gears that allow the diffs to be mounted lower on the chassis. In addition, both the front and rear diffs—and the rest of the drive train—are offset 7mm to the right side of the chassis to allow the engine and fuel tank to be mounted as close as possible to the chassis centerline.

The cast-alloy internal bevel and spider gears inside the diffs have large teeth that look as though they should be able to handle plenty of horsepower. Tamiya supplies a thick grease to slow down the diff action, and it's so effective that I'm going to order more of it to use on my other gear-diff-equipped cars.

A single lightweight aluminum propeller shaft joins the two gearboxes and provides full-time 4WD. A newly designed, adjustable 2-speed transmission is attached to the rear gearbox and is joined to the front by the main propeller shaft. Instead of using a locking "fingers"-type centrifugal shifting system, which is common on many other 2-speed-equipped vehicles, Tamiya adopted an adjustable 2-shoe centrifugal clutch system to engage the shift point. The Tamiya 2-speed transmission shifts very smoothly and should require less maintenance than conventional 2-speed systems.

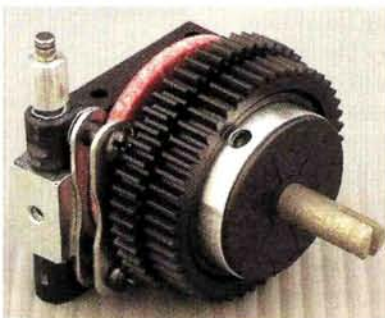
The TGR features the same disc brake system as is found on the TGX-Mk.1. Two cam-actuated steel brake pads pinch the 3mm-thick fiber-composite disc brake that's keyed to the 2-speed transmission's drive hub. Regardless of which servo you use, this

braking system should provide smooth, controlled braking without fading. Front and rear steel dogbones and serrated axles with aluminum hex hubs complete the drive train (no more drive pins; way to go, Tamiya!). I was a little bummed that the TGR doesn't include universal axles for the front, but this is made up for by the fact that the entire drive train—including the wheels—spins on Tamiya's high-quality rubber-sealed bearings.

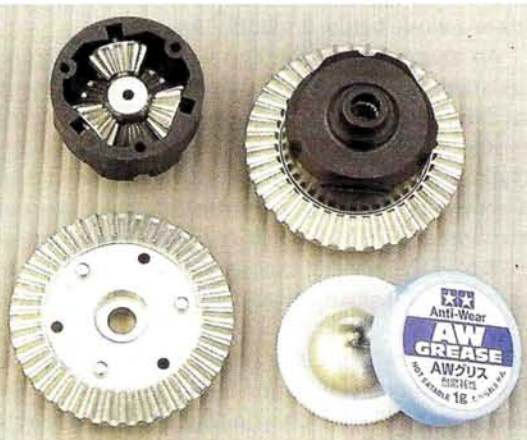
• **Suspension.** The TGR features an all-new racing suspension that includes extra-long front and rear lower suspension arms and unique molded, telescoping upper links. The lower suspension arms capture the front "C" carriers and rear hub carriers for added strength, and the entire suspension pivots smoothly on stainless-steel hinge pins. Setscrews threaded into the lower front and rear suspension arms allow down-stop travel adjustment. The two-piece molded upper links have corresponding male and female halves that are joined with threaded rods. The downside to this system is that you have to unfasten one end of the molded upper links to make camber adjustments, but the molded upper links are more rigid than standard camber links, and that makes up for the slight inconvenience.

Tamiya's excellent aluminum-body, oil-filled shocks with double O-ring seals, silicone diaphragms and Teflon pistons and shaft guides are standard issue. The shocks are black-anodized to match the rest of the car's components, and they provide exceptionally smooth performance. The front shocks snap onto ball joints that are installed on the suspension arms and front bulkhead. The rear shocks are also

attached to the suspension arms with ball joints, but the upper portions are attached to a graphite shock tower. To provide



**Right: a thick fiber brake disc, steel caliper and clutch-style, 2-speed transmission are compactly assembled and mounted just ahead of the rear gearbox. The differentials (below) use classic 3-gear internals, while the ring is cast as an integral part of the diff case. Sticky "Anti Wear" grease is supplied; its extra-tacky consistency prevents it from being flung off the diff gears.**



### Airtronics M8 transmitter

I used my trusty M8 to control the TGR. This computer-controlled transmitter is loaded with racing features and is used by more top racers than all other radio systems combined. The M8 performed excellently; it didn't glitch once during the testing.

### KO Propo digital servos

A PDS-2143FET high-speed servo operates the steering, and a PDS-2144FET high-torque servo controls the throttle and brake functions. I had never tried KO servos before, and I was extremely impressed by their performance. The servos have coreless motors, metal gears, ball bearings and gold-plated connectors—high-quality stuff.

### Trinity Nitro Metal Hydride receiver pack

To operate properly, the KO FET servos require a minimum of 6 volts; that's why I installed a Trinity Nitro Metal Hydride 5-cell, 6V hump pack. I got well over an hour of run time from these batteries; impressive, considering that the battery pack drives two high-speed/high-torque servos.

### O'Donnell 20-percent nitro fuel

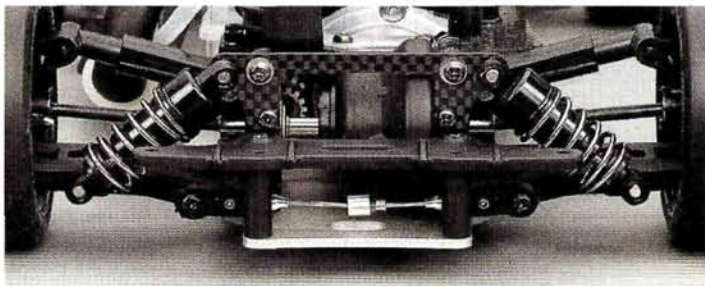
This high-quality racing fuel is used by many top racers and is available at most hobby shops in gallon and quart bottles.

## THE COMPETITION

|                      | CHASSIS                | ENGINE               | EXHAUST           | CARBURETOR             | BODY INCL. | WHEELBASE    | STREET PRICE | REVIEWED    |
|----------------------|------------------------|----------------------|-------------------|------------------------|------------|--------------|--------------|-------------|
| HPI Super Nitro RS4  | 2.5mm aluminum         | HPI 15 FE            | Muffler           | Rotary, 1-needle       | Yes        | 280/300mm    | \$289        | 3/99        |
| Kyosho SuperTen FW04 | 3mm aluminum           | Kyosho GS-15R        | Tuned-type        | Rotary, 2-needle       | Yes        | 280mm        | \$399        | 5/00        |
| <b>Tamiya TGR</b>    | <b>2.5mm duralumin</b> | <b>Tamiya FS15RB</b> | <b>Tuned-type</b> | <b>Slide, 2-needle</b> | <b>No</b>  | <b>300mm</b> | <b>\$325</b> | <b>7/01</b> |

All vehicles listed include disc brakes and ball bearings.





**Above:** the TGR's low-friction, aluminum-body shocks are easy to mistake for plastic because of their black-anodized finish, but the torsion-style swaybar is easy to spot. **Right:** the camber links look "one piece" after assembly but are actually telescopic to allow adjustments. The system is not as convenient as a turnbuckle, but it's much stiffer.



more progressive damping, all four shocks are mounted in a lay-down position, and stiff front and medium rear springs are included to balance out the car's handling. Also included are front and rear ball-and-cup swaybars that can be adjusted to reduce body roll and divert traction to the front or rear as necessary.

- **Steering.** A heavy-duty servo-saver that accepts all popular brands of servos is included. A threaded steering rod links the servo to a silky smooth, bronze-bushed dual-bellcrank system that pivots on aluminum posts. A threaded rod joins the two bellcranks, and aluminum turnbuckle tie rods allow easy toe-in/out adjustment. Large-diameter ball joints and ball ends are used throughout the steering and suspension system for greater security, and the front-end geometry is nearly perfect, as evidenced by the lack of bump-steer.

- **Engine and accessories.** The TGR is the first Tamiya vehicle (that I've ever tested, anyway) that comes equipped with a non-pull-start engine. This clearly defines the TGR's racing intentions. You'll need a starter box or a starter wheel to fire up the engine, but most racers will find this a welcome feature. The TGR is powered by Tamiya's new FS-15RB engine, which has a black crankcase and a black, low-profile aluminum heat-sink head. The engine also features a responsive, dual-needle-valve slide carburetor and true ABC construction; this means the piston and sleeve should last quite a while before a rebuild is necessary.

An aluminum header and sleek-looking composite tuned pipe are standard equipment, along with a broad-element, low-profile air filter that perfectly matches the rest of the car's slammed, low-profile motif. A 2-shoe clutch and bearing-supported 2-speed clutch bell are also included, as are machined engine mounts and a lightweight aluminum flywheel. A 100cc fuel tank provides long run times and is held in place by body clips for easy removal. The TGR also includes all the necessary linkages, fuel line and fasteners to install the engine and radio equipment with minimal fuss.

- **Tires and wheels.** The TGR is a racing-chassis kit, which means that a Lexan body is not included. Tamiya has many great-looking bodies to fit the TGR, so finding a suitable body shell should not be a problem. We outfitted our test vehicle with a custom-painted Tamiya Raybrig Honda NSX body from Zegers R/C Graffixx; it provides a great deal of front downforce for superior steering. The TGR includes a complete set of sticky, belted slicks with shaped inserts that provide excellent traction on most asphalt and cement surfaces and cool-looking spoked wheels (black, of course).

## PERFORMANCE

It seemed appropriate to test the TGR at California RC Center in Anaheim, CA, since I've raced several super-size cars there before, and I'm familiar with its slick concrete surface. I took the time to break in the engine the day before, so it was "full speed ahead" from the get-go. After a few slow laps to warm up the engine and tires, I grabbed a handful of throttle. The TGR flew down the straightaway like it was shot off a steam catapult, but it didn't shift into second gear, which was OK because the car was still picking

up speed toward the end of the straightaway. I came into the sweeper a little hot, but the car steered right into a corner and held a tight line. The car's tail swung out when it exited the sweeper and entered the next corner, but I was able to control it with careful throttle input.

The TGR responded quickly to all inputs from the transmitter and almost seemed to anticipate my next move. The chassis stayed flat during cornering, braking and acceleration, and the stock tires stuck tenaciously to the track surface. After I had run the car for a few minutes, I pulled into the pits to adjust the 2-speed tranny. I tried various shift points, but the track just wasn't large enough to take advantage of the 2-speed transmission, so I ended up locking the tranny into first gear. I was amazed at how well the TGR handled, considering it was completely box stock. It soon became clear that the TGR's low-CG chassis combined with the power of the new FS-15 RB engine is a hard act to follow. This car is dialed!

The next portion of this Track Test took place in front of my house. I wanted to test the car's top speed, so I installed the optional high-speed spur-gear set that's included with the kit and readjusted the shift point. After a few passes to find the sweet spot on the high-speed needle, I buried the throttle trigger. The TGR shot out like a bullet and reached the end of my street in less than 3 seconds. The tranny shifted into high gear so smoothly that you could hardly hear the shift. The car's noticeable increase in speed was difficult not to notice, though.

## THE VERDICT

The TGR is the most dialed-in super touring car I've ever tested. This is quite a compliment, considering that the car was tested completely box stock! The TGR isn't only fast on the track; it also looks fast just sitting on the bench or displayed in your workshop. In fact, the TGR actually looks better with the body off! This leads me to believe that racers aren't the only hobbyists who will be attracted to this kit. General enthusiasts who are looking for a visually stunning chassis with many highly detailed touring and GT1-style body choices will appreciate the TGR as well. If you're looking for a high-quality, feature-filled super touring chassis, the TGR should be at the top of your "must-see" list. ■

## SOURCE GUIDE

**AIRTRONICS**  
1185 Stanford Ct., Anaheim, CA  
92805; (714) 978-1895;  
www.airtronics.net.

**KO PROPO USA INC.**  
16012 South Western Ave., Ste.  
308, Gardena, CA 90247; (310)  
532-9355; info@kopropo.com;  
www.kopropo.co.uk.

**O'DONNELL RACING**  
10702 Hathaway Dr., # 2, Santa Fe  
Springs, CA 90670; (562) 944-9671.

**TAMIYA AMERICA INC.**  
2 Orion, Aliso Viejo, CA 92656-  
4200; (800) TAMIYA-A;  
www.tamiya.com.

**TRINITY PRODUCTS INC.**  
36 Meridian Rd., Edison, NJ  
08820; (732) 635-1600;  
www.teamtrinity.com.

**ZEGERS R/C GRAFFIXX**  
rcpaintman@aol.com.







# OFNA Ultra MBX-R2

Testing OFNA's "middle-high-end" buggy

by Peter Vieira







The OFNA Ultra MBX-R2 is the latest addition to the Ultra series, which was last updated with the Ultra Worlds II model. The R2 is billed as a "medium-upscale" kit and combines some of OFNA's most requested features with an affordable price (for  $\frac{1}{8}$  scale) that will undoubtedly appeal to budget-minded racers—although the R2 is hardly an "entry-level" kit in terms of its standard equipment. OFNA's David Morales summed up his goal with the R2 quite succinctly: "I did this to get people into eighth scale." If getting into  $\frac{1}{8}$  scale is your goal this season, the R2 deserves a look; here's how it ran for me.

## DATA CENTER

**VEHICLE TYPE**  $\frac{1}{8}$ -scale 4WD nitro buggy

**BEST BUYER** Experienced nitro enthusiasts, budget-minded racers

**KIT RATINGS** (poor, satisfactory, good, very good, excellent)

**Instructions** Not supplied with test car

**Parts fit and finish** Good

**Durability** Good

**Overall performance** Very good

## SPECIFICATIONS

**MANUFACTURER** OFNA

**MODEL** Ultra MBX-R2

**SCALE**  $\frac{1}{8}$

**STREET PRICE** \$259 w/o engine, radio

### DIMENSIONS

**Wheelbase** 12.5 in. (318mm)

**Width** 11.8 in. (300mm)

### WEIGHT

**Total, as tested** 124 oz. (3,515g)

### CHASSIS

**Type** 3mm with plate upper braces

**Material** 6061 aluminum

### DRIVE TRAIN

**Type** Shaft-driven 4WD

**Primary** Clutch bell/spur gear

**Drive shafts (F/R)** CVA

universal/dogbone

**Differentials** Bevel gear

**Bearing type** Rubber-sealed ball bearings

### SUSPENSION

**Type (F/R)** Double wishbone pivot ball/H-arm pivot ball with camber link

**Damping** Aluminum fluid-damped shocks

### WHEELS

**Type** OFNA one-piece, 5-spoke

### TIRES

**Type** OFNA lugged tread with foam insert

### ENGINE AND ACCESSORIES

**Engine** Not included

**Air filter** Foam element

**Fuel capacity** 125cc

**Manifold** OFNA round port

**Pipe** OFNA tuned aluminum pipe

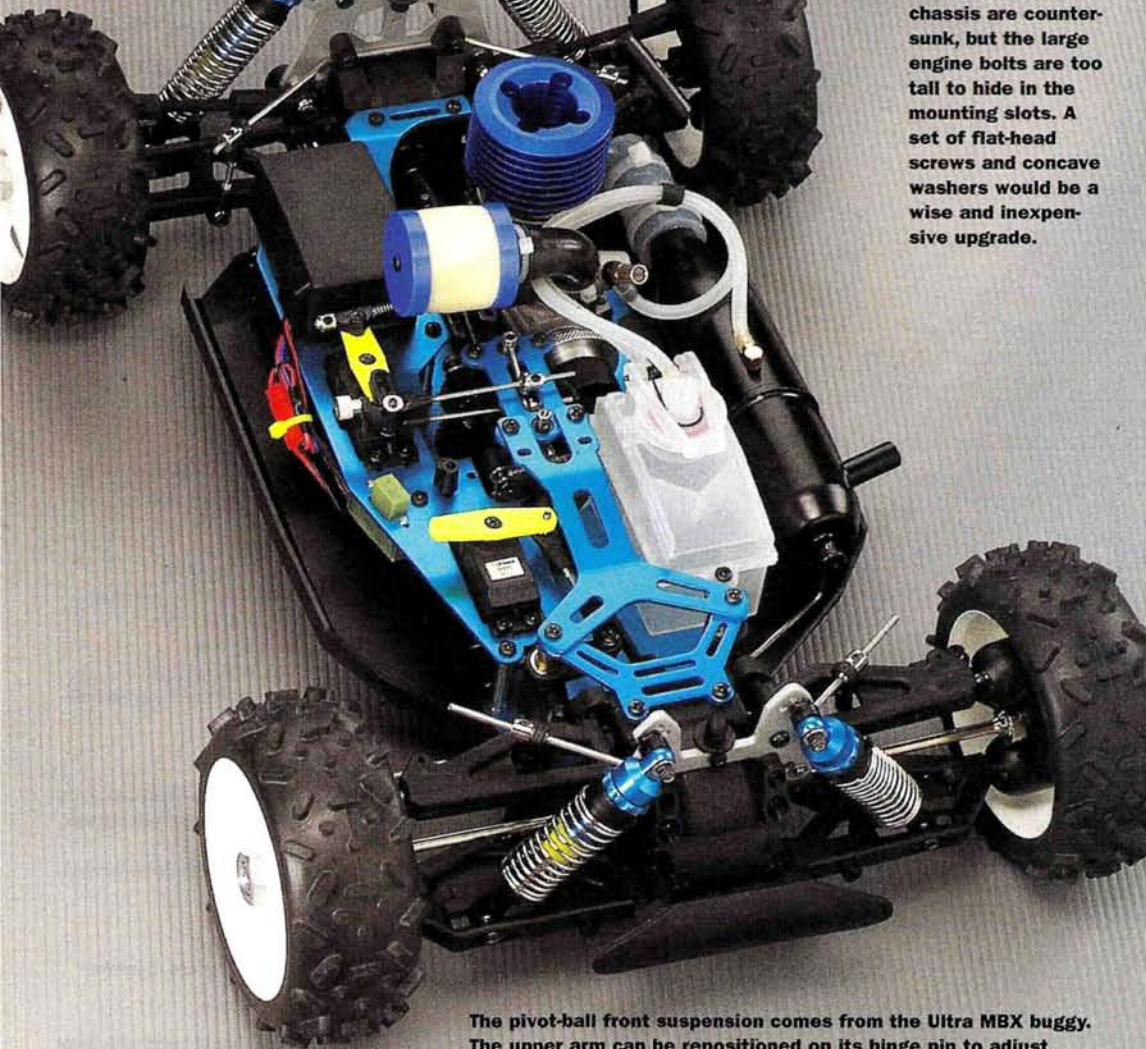
## LIKES

- Good-looking blue anodizing.
- Precisely adjustable suspension.
- Reusable nylon case.
- Race-worthy performance.

## DISLIKES

- Rear wing broke easily.
- No chassis kickup.
- Accessing receiver requires tools.
- Receiver pack is left exposed.





All the holes in the chassis are countersunk, but the large engine bolts are too tall to hide in the mounting slots. A set of flat-head screws and concave washers would be a wise and inexpensive upgrade.

## building & setup tips

OFNA plans to offer the R2 as a rolling chassis with a clear body, minus engine and radio. A nylon carrying case serves as the box and comes in handy for carrying your gear later. When you unzip the box, you'll find the R2 mostly assembled; the shocks are built and filled but must be installed. Likewise, the glued tires and rims have to be buttoned down and the wing mounted. You're looking at 10 minutes tops, plenty of time for the real work—engine and radio installation. Here are some tips to consider:

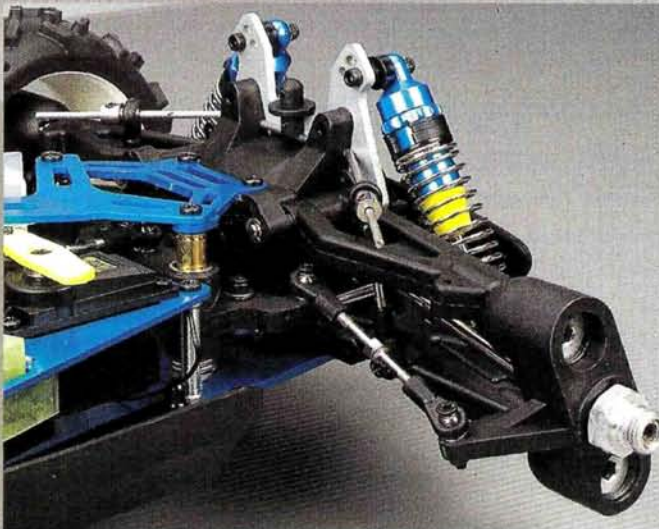
**Engine installation.** Make sure you install the engine mounts on the engine first; if you put them on the chassis and then try to drop the engine onto the mounts, you'll never get the mounting screws to catch the captured nuts. Once you have the engine bolted in and the gear mesh set, remove the engine-mounting bolts one at a time and apply thread-lock to each.

**Radio installation.** First, get the right gear. Go with an FM radio system if you can, as you'll be less likely to encounter glitching troubles. You should also install a high-torque steering servo. A "standard" servo will work well enough for you to play with the R2, but you won't have precise steering control, and you'll probably break the servo before too long. And finally, if your servos have wimpy, flexible horns, replace them with stiffer units from OFNA or GS Racing. This is especially important for the steering servo.

**Thread-lock the shock nuts.** If you've read even just one issue of *RC Car Action*, you probably know to add thread-lock to all screws that thread into metal, especially the engine-mounting bolts and the various radio-tray screws. But you probably wouldn't thread-lock the shock-mounting nuts (neither would I, since they almost always have nylon inserts to prevent loosening). But in the case of the MBX-R2, the nylon's grip was pretty feeble, and I headed into the pits with an unhooked shock and a missing mounting nut on a few occasions.

**Swaybar setup.** The Ultra MBX-R2 includes front and rear swaybars, which can be a help or a hindrance, depending on your track. Before you start messing with shock fluids, springs and preload to get the car dialed into your track, first try to disconnect one or both swaybars; if the track is very bumpy, you may not want to run swaybars at all. Swaybars help most on flat, fast, high-traction surfaces. As always, experimentation is key.

The pivot-ball front suspension comes from the Ultra MBX buggy. The upper arm can be repositioned on its hinge pin to adjust caster, and turnbuckle tie rods allow easy toe adjustment. The front swaybar is standard.



### YOU'LL NEED

- Transmitter and receiver
- Steering and throttle servos
- Receiver battery
- .21 engine
- Polycarbonate-compatible paint
- Fuel
- Fuel bottle
- Glow igniter

### FACTORY OPTIONS

- Aluminum arm mounts—part no. 31171
- Graphite front brace—31270
- Graphite radio tray—31280
- Aluminum wing supports—31210
- 2-speed transmission—35001



## KIT FEATURES

• **Chassis.** The R2 is built on a 3mm, blue-anodized aluminum chassis. All the screw holes are counter-sunk as are the engine-mounting slots, but the engine mounts' 8mm mounting bolts still protrude from the chassis' underside. The completely flat chassis plate has no stamped-in kickup. That puts the R2 behind the curve when it comes to full-on competition buggy tech, but that won't prevent you from having a lot of fun in the dirt or making a decent showing on the track.

A plate aluminum brace stiffens the R2 by linking the front transmission, steering bellcranks and plastic center diff mount, and an additional brace joins the rear transmission to the radio tray, which is also stamped aluminum. All the alloy parts are blue-anodized to match the main chassis.

A sealed receiver box is standard as well, but it's not the Ultra Worlds' flip-top box. The screw-mounted unit included with the R2 is still quite functional, if less convenient. There's plenty of room for the receiver, but the receiver battery must be stowed beneath the radio tray, exposed to the elements.

• **Drive train.** Like all 1/8-scale buggies, the R2 gets rolling with a shaft-driven, triple-differential setup. The diff housings are plastic, but the diffs' bevel and pinion gears are solid steel. The spur gear is also steel—a huge bonus on any buggy but especially a budget-priced machine. Plastic gears never last long in the big machines, and replacing a smoked spur is a hassle.

Rear dogbones help keep the R2 reasonably priced, but the front end gets the deluxe treatment with plated constant velocity axles, or "CVA joints," in OFNA parlance. The axles are completely rebuildable, which is a plus for such a hard-working part, and the 8mm stub axles should be just about bend-proof.

Dual disc brakes haul the R2 to a stop. The calipers are steel and squeeze thick fiber rotors. Brake bias is adjusted by changing the linkage throws, but once set, a single thumbwheel on the throttle servo horn makes it easy to dial in the amount of brake you want to have available without having to reach for any tools.

Rubber-sealed ball bearings keep everything spinning along and are considered a must-have in an 1/8-scale machine because constant exposure to sticky, metal-shredding dirt and grit will detonate shielded bearings sooner or later—usually sooner.

• **Suspension and steering.** The Mugen MBX-4 popularized front pivot-ball suspension for 1/8-scale off-road use, but OFNA's Ultra MBX-R2 is the first 1/8-scale buggy to incorporate a large-diameter



Here's an 1/8-scale first: rear pivot-ball suspension. Rear toe-in is infinitely adjustable and, more important, easy to adjust without disassembly.

pivot-ball rear suspension system (in fact, the "R2" stands for "rear 2"—since it has pivot balls in the rear, too). The pivots are secured by the usual plastic-padded aluminum retainers, and generously sized shafts on the balls permit a wide range of adjustment for track and rear toe. The same pivot hardware is found in the R2's front pivot-ball system. Caster is adjustable via plastic spacer clips that position the upper arms fore or aft on their hinge pins. The front end is the same as the Worlds pivot-ball option; as you may recall, the Worlds kit included two complete suspension setups: MBX pivot-ball style and Inferno hinge-pin and hub-carrier style. The R2 only includes the pivot-ball system.

OFNA's standard-issue Ultra-series shocks do their usual capable job of damping the suspension, and they look good, thanks to their blue-anodized finish. Rubber shaft wipers extend time between rebuilds. The factory-filled shocks' damping feels correct for the spring rates, but the suspension feels stiff when you compress it by hand because of the thick swaybars on each end of the car. This setup should make the R2 very fast on a smooth track, but I'll probably disable the front swaybar (if not both) for rougher stuff.

• **Engine and accessories.** The R2 is offered without an engine, but everything you need to bolt up the powerplant of your choice is included. There's a round-port manifold and an aluminum tuned pipe, a silicone coupler to join them and the required manifold spring. Clutch-mounting hardware is supplied to fit standard (non-SG) cranks, and the included clutch is a 3-shoe unit. A steel clutch bell with dual ball bearings is also supplied.

Clean air is important to engine life, so OFNA includes a large foam-element air filter. The plastic-body filter is rugged and is mounted to the engine via a rubber elbow.

### Airtronics Blazer transmitter and receiver

I don't usually run AM gear in nitro models, but this setup was already installed on the pre-production R2 sample I tested, so I decided to leave well enough alone. The transmitter is identical to the Blue Blazer reviewed elsewhere in this issue, and it performed reliably in the R2.

### Hitec HS-645MG Ultra Torque steering servo and Airtronics 94102 throttle servo

Along with the Blazer transmitter and receiver, my test R2 was equipped with a pair of 94102 "standard" servos. I had no qualms about leaving the inexpensive servo in place for the throttle, but 40 or so oz.-in. of torque just isn't enough for steering. I swapped the installed servo for a Hitec Ultra Torque model—good for a claimed 107 oz.-in. That's the kind of steering power you need in an 1/8-scale buggy.

### OFNA Force .21 4-port pull-start engine

I ran a pull-start engine in the R2 because it was already installed on the chassis. Easy choice! Racers may scoff, but I enjoy traveling light (anytime I can leave the starter box at home, I'm all for it). OFNA claims the 4-port mill pumps out 1.7 horsepower and 31,000rpm. I can't confirm that without a dyno, but I can say the engine ripped up the test track with ease. It also started reliably, but tugging a .21 to life is a little tougher on the wrists than starting a .12.

### Byron Race 2000 fuel

This is Byron's 20-percent-nitro/12-percent-oil mixture, and it delivered good results with the OFNA Force pull-start engine. According to Byron, the oil content is a 60:40 blend of castor and synthetic, and the additional castor increases lean-run protection. All I know is the engine ran reliably throughout my tests and made plenty of power!

### THE COMPETITION®

|                       | CHASSIS | PIPE/MANIFOLD    | CLUTCH | BRAKE DISC | BEARING TYPE   | STREET PRICE* | REVIEWED |
|-----------------------|---------|------------------|--------|------------|----------------|---------------|----------|
| Kyosho Inferno MP 7.5 | 3mm     | Not included     | 2-shoe | Steel      | Metal shielded | \$479         | 7/01     |
| Mugen MBX-XR Works    | 3.25mm  | Not included     | 3-shoe | Steel      | Rubber sealed  | \$565         | 5/01     |
| OFNA MBX-R2           | 3mm     | Tuned/round port | 3-shoe | Fiber      | Rubber sealed  | \$259         | 7/01     |
| TTR EB-4              | 3mm     | Not included     | 2-shoe | Steel      | Rubber sealed  | \$418         | 4/00     |

Category is too large to list all competitive vehicles. \*Approximate; price varies with dealer. None of the kits include engines.



Cast mounts hold the engine in place and are slotted for easy fore-and-aft adjustment. A 125cc fuel tank with molded-in splash-guard and cap-mounted pressure fitting rounds out the fuel-delivery package.

• **Body, wheels, and tires.** OFNA 5-spoke rims are fitted with aggressive tires that feature a widely spaced tread pattern that should shed mud and thick, clogging dirt well. Soft foam inserts are included, and the tires are assembled and glued at the factory. The body is clear and has the rounded lines of the other Ultra-series buggies. A triple-element, two-piece rear wing is also included.

## PERFORMANCE

Xtreme RC Raceway of New Milford, CT, hosted an afternoon of testing the MBX-R2. The track had yet to be groomed for the new race season and was a lunar-landscape version of last season's layout—rough and wild and sure to be a good test of the R2's abilities.

The pull-start Force engine started as soon as fuel touched the carburetor, and after a brief warmup, I was able to get into the throttle and push the R2 as fast as it could go without flying out of the corners. The car I tested was built of production parts but was assembled as a photo mule, not a race-ready car, so I have to reserve judgment on the factory setup. That said, the shocks needed more dialing in (the damping wasn't well matched to the spring rate), and they packed up over the bumpiest sections of the track. Disabling the swaybars helped free up the car, but now it flipped easily in the turns; the shocks packed, the chassis unsettled, and over it went after a couple of flip-happy laps (and one cracked rear wing). I put the rear swaybar back into action, and while I was at it, I cranked in the rear suspension arms' droop screws to take out some down-travel. The R2's handling instantly improved, and it felt as if it was only a shock-oil swap away from being hooked up—at least in the turns.

Jumping was another story. Although the R2 launched just fine, it had to touch down flat or tail first, or the front of the chassis grabbed the track and stopped the R2 as if it had hit a block of concrete in a NHTSA crash test. Dropping into the backside of a

set of doubles nose first won't upset the car, but landing nose first on the flats (or worse, on the face of a jump) will lead to the augured-in dead stop described above. The solution? If the front end drops, get on the gas until the car levels out.

After half a bottle's worth of fuel at Xtreme, I packed up the R2 and headed to Bethel Supercross for anything-goes BMX track testing. I suspect many R2 customers will show the big buggy a lot more play time than track time, and there isn't a more fun (or brutally destructive) place to play than at a BMX track. Here, the photo-sample R2's stiff damping was an asset, since I was skying the car over jumps bigger than the launchers at the IFMAR 1/8-scale worlds. I don't think there's anything I could have put in the shocks that would have totally prevented them from bottoming (except maybe cement), but the thick goo in the dampers took the edge off the biggest hits. The longest, highest launches came when I drove the R2 up and over the face of "Ring's End," the track's tallest, paved berm. The R2 added about 5 feet of air to the bowl's 15-foot-high vert lip, then fell away about 25 feet to the sloping ground below. After three or four of these re-entries, the body clips pulled straight through the body, and the R2 was running around "naked" but otherwise unscathed. It's tough. Not only did all the parts stay intact, but everything also remained properly adjusted. I thought for sure that the pivot balls would develop a lot of play, but the hubs were wiggle-free after testing.

## THE VERDICT

For full-time racing, I think the Ultra MBX-R2 is a few degrees of chassis pickup away from being a 100-percent race-ready ride. Pickup would also help make the front suspension more supple on bumps, but the R2 didn't seem to suffer in that regard (stiff damping notwithstanding). If you've mastered midair attitude control, you can drive around the endo tendency, and if your track doesn't require the R2 to land on flats, it will be even less of an issue.

Now, if you're simply out for some of the craziest nitro offroad action a person can experience with RC, that's another story; the MBX-R2 will not disappoint at all in that arena—and that's probably the type of driving R2 buyers will do most. The MBX-R2 is a good package, especially as a first 1/8-scale buggy for the enthusiast

coming from electrics; OFNA builds the chassis and equips the car with all the good stuff an experienced hobbyist is savvy enough to want (CVA universals, rubber-sealed bearings, steel main gear, blue stuff) but leaves out radio gear (so you can swap in your own system) and includes a dollar-saving clear body. In all, the Ultra MBX-R2 will make a fine first 1/8-scale buggy, and it has more than enough features and adjustability to go racing—just watch those jumps. ■

### 1/10 SCALE [www.NewEraModels.com](http://www.NewEraModels.com)

New Era Models P.O. Box 7378 Nashua, NH 03060 603-888-4453  
DEALER INQUIRIES INVITED  
Check Our WEB SITE for Other CAR & TRUCK Upgrades






**LIGHT Upper Steel Tube Chassis for**  
**T-MAXX TRM101L \$149.95 Chassis only**  
**E-MAXX TRE101L \$149.95 Chassis only**

**T/E-MAXX CNC Aluminum Upgrades Silver or Blue**

|                              |                                    |
|------------------------------|------------------------------------|
| TRM320 Front Skid Plate      | \$21.95                            |
| TRM321 Rear Skid Plate       | \$19.95                            |
| TRM320SD 3.2mm Frit Skid     | \$24.50                            |
| TRM321SD 3.2mm Rear Skid     | \$24.50                            |
| TRM322 Front Bumper pr.      | \$18.95                            |
| TRM323 Rear Bumper pr.       | \$18.95                            |
| TRM324 Front Bumper Supports | pr. \$24.95                        |
| TRM325 Rear Bumper Supports  | pr. \$24.95                        |
| TRM102 Rear Sway Bar         | \$39.95                            |
| TRM305 Front Sway Bar        | \$39.95 (Requires TRM324)          |
| TRM326 Lower Braces pr.      | \$54.95                            |
| TRM326R Racing Braces pr.    | \$38.50                            |
| TRM318P Front Body Mount     | With Solid Post and Collar \$24.50 |
| TRM319 Rear Body Mount       | With Solid Post and Collar \$24.50 |
| TRM329 Steering Drag Link    | \$9.95                             |
| TRM330 Front Bulkhead        | \$37.50                            |
| TRM343 Wheelie Bars          | \$32.95                            |

Call for many more T-MAXX Parts

|                                 |                            |
|---------------------------------|----------------------------|
| TRM331 Rear Bulkhead pr.        | \$74.50                    |
| TRM332 Upper Arms pr.           | \$44.50                    |
| TRM332R Racing Arms pr.         | \$36.50                    |
| TRM333 Lower Arms pr.           | \$49.50                    |
| TRM333R Racing Arms pr.         | \$39.50                    |
| TRM334 Center Skid Plates       | \$15.00                    |
| TRM335SD Full Center Skid       | 3.2mm \$27.95              |
| TRM336 Frit or Rear Shock Tower | \$38.00                    |
| TRM910 Roll Bar w/Brace         | \$38.50                    |
| TRM110 21 Conversion includes:  |                            |
| Extended Chassis, Extended Rear |                            |
| Skid, One Piece Engine Mount,   |                            |
| Clutch Nut & Universal          | \$139.95                   |
| AGT301H-Torque Ripple Pipe      |                            |
| Powder Coat Blue                | \$29.95                    |
| AGT301W Pipe Wire Blue          | \$ 5.00                    |
| TRM241 Header Blue              | \$24.95                    |
| TRE110 E-MAXX Roll Bar with     |                            |
| Brace powdercoat Blue           | \$39.50                    |
| TRE280 E-MAXX Motor Mount       | with AIRCOOL Paths \$29.95 |




## SOURCE GUIDE

### AIRTRONICS

1185 Stanford Ct., Anaheim, CA 92805;  
(714) 978-1895; [www.airtronics.net](http://www.airtronics.net).

### BYRON ORIGINALS

P.O. Box 279, Ida Grove, IA 51445;  
(712) 364-3165; [www.byronfuels.com](http://www.byronfuels.com).

### HITEC RCD INC.

12115 Paine St., Poway, CA 92064;  
(858) 748-6948; [www.hitecrcd.com](http://www.hitecrcd.com).

### OFNA RACING

22692 Granite Way, Ste. B, Laguna Hills, CA  
92653; (949) 586-2910; [www.ofna.com](http://www.ofna.com).



# READERS' CHOICE AWARDS 2001

by the staff of  
RADIO CONTROL  
CAR ACTION

## YOU CALLED IT!

**T**he people have spoken, the votes have been tallied, and the 2001 Readers' Choice Awards results are in!

This year, we've divided the vehicle categories into "Nitro" and "Electric," and there's a new category—fuel. This is the logical outcome of the growth in popularity of nitro vehicles; you can't run a nitro car without fuel. Familiar brands have returned to some of the top spots while others have been dethroned. Did your picks win?

### ASSOCIATED RC10 T3

Even before we divided our Truck category into Electric and Nitro, Associated's T-machines reigned supreme in your voting. It's the T3's third term in office as your favorite, and it shows no signs of slowing down. With Team Built and Factory Team editions now part of the T3 line, it's clear the Associated T-series still has legs as the most consistent vehicle-category winner.

- 2 Traxxas E-Maxx
- 3 Team Losi Triple-XT

ELECTRIC TRUCK

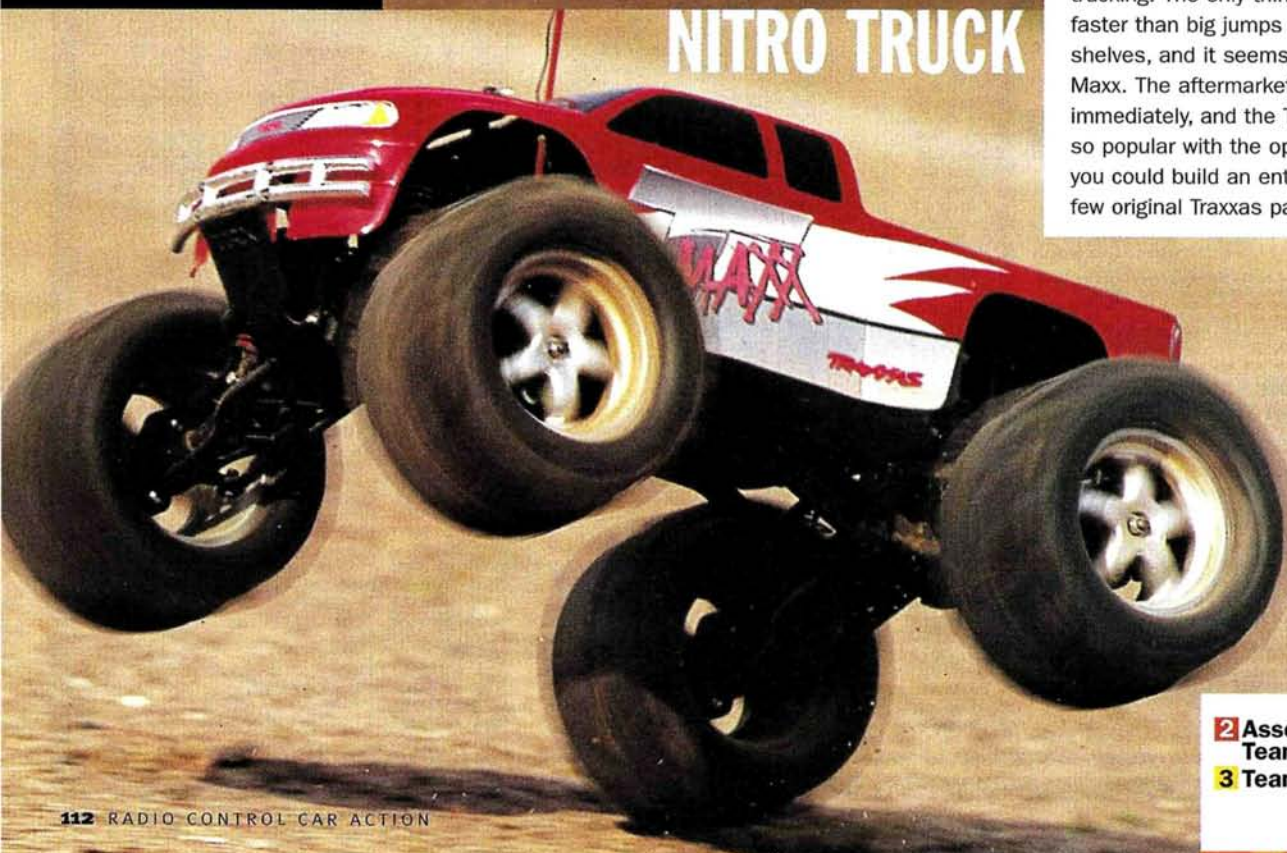


### TRAXXAS T-MAXX

Right now, the Traxxas T-Maxx is nitro trucking. The only thing the T-Maxx flies off faster than big jumps is hobby shop shelves, and it seems everybody has a T-Maxx. The aftermarket took notice almost immediately, and the T-Maxx has become so popular with the option parts guys that you could build an entire T-Maxx with only a few original Traxxas parts left in place!

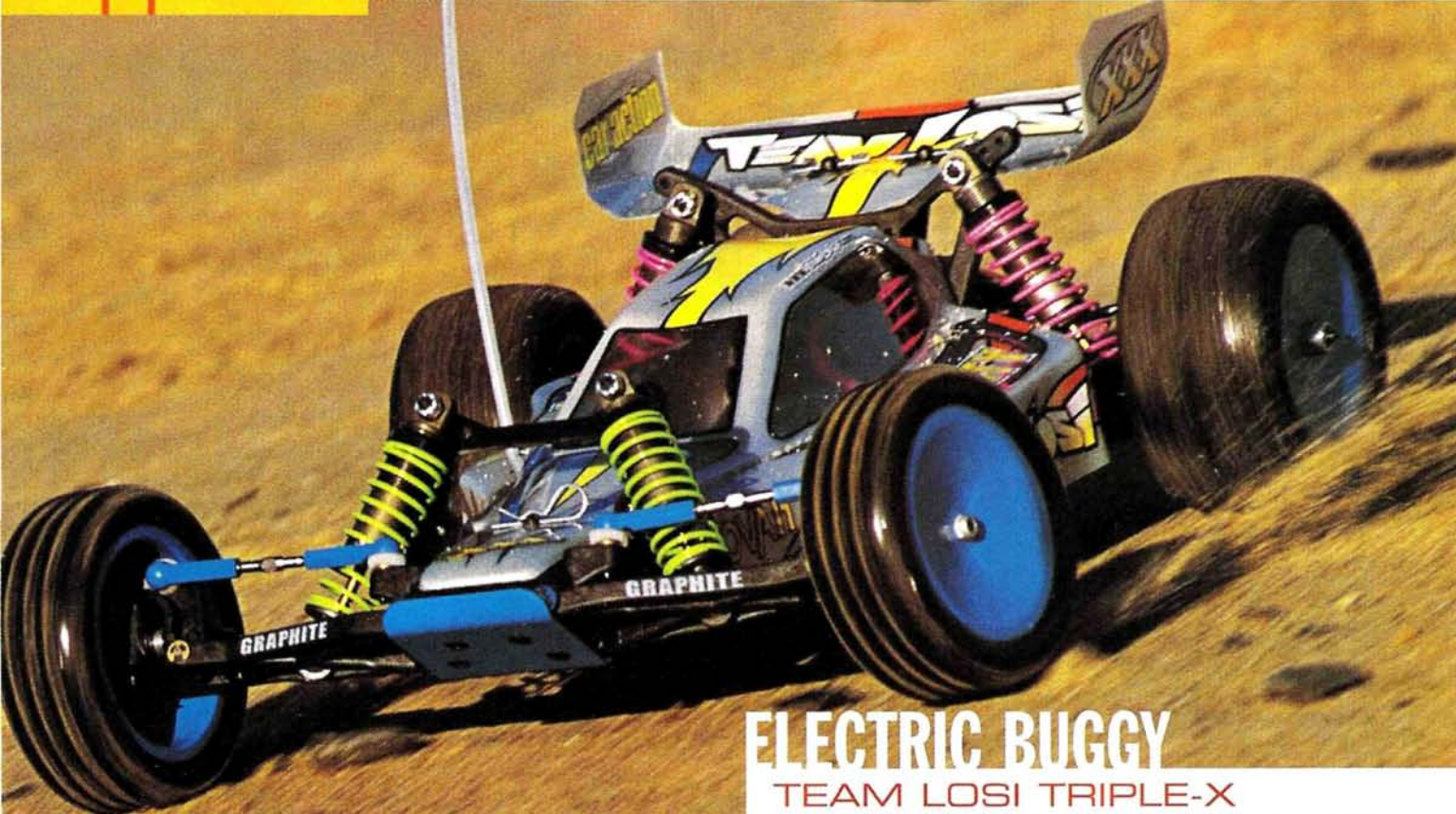
From "out-of-the-box" beginners to seasoned racers running modified trucks, everyone has embraced the T-Maxx. First place in the Nitro Truck category—anybody surprised?

### NITRO TRUCK



- 2 Associated Factory Team RC10GT
- 3 Team Losi Triple-XNT





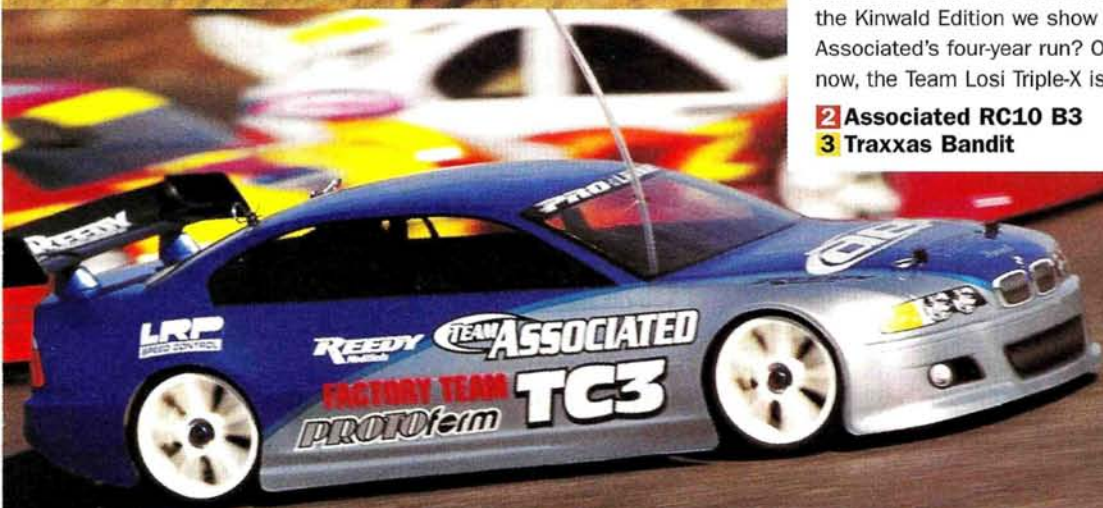
## ELECTRIC BUGGY

### TEAM LOSI TRIPLE-X

Last year, Team Losi dethroned the Associated B-series buggies that had ruled our Readers' Choice Awards since its inception in 1996. The Triple-X is back in the top spot this year, but more than one machine now wears the "Triple-X" badge: Team Losi has added Dirt Spec and Kinwald Edition models to the line, and it's the Kinwald Edition we show here. Can Losi hang on to top Associated's four-year run? Only time will tell, but in the here and now, the Team Losi Triple-X is your choice.

**2** Associated RC10 B3

**3** Traxxas Bandit



## ASSOCIATED TC3

The TC3 is the first touring car to hold down the top spot for two consecutive years. Given the numbers of them we see at the track and the huge aftermarket support for it (need proof? Check out the Ultimate TC3 in this issue), it's no surprise that you voted it number one again.

**2** HPI RS4 Pro 2

**3** Traxxas 4-TEC

## ELECTRIC TOURING/ON-ROAD

### KYOSHO INFERNO MP 7.5

Does an IFMAR 1/8-scale World Championship victory—wait; make that five world championships—affect Readers' Choice votes? Can't hurt. But even if those Worlds wins aren't why "MP 7.5" was penciled in more often than any other nitro-burning buggy's name, it's easy to see why it came out on top. The solidly constructed, race-proven, innovative Inferno series is the benchmark for 1/8-scale performance and your choice for number one.

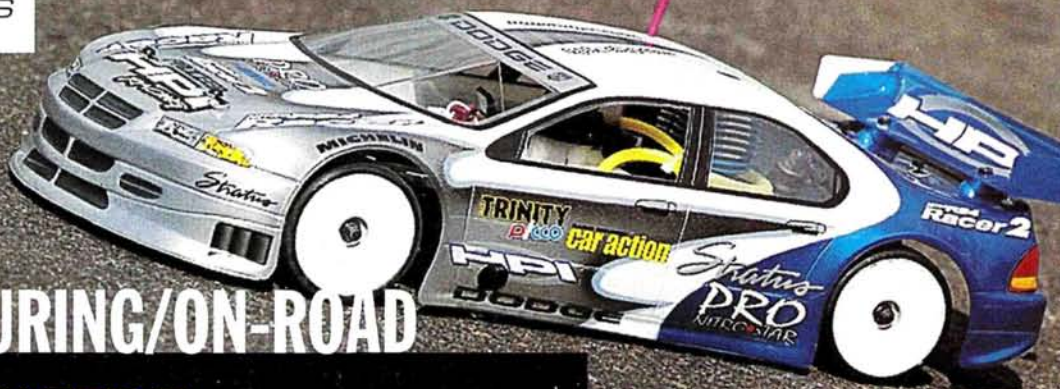
**2** Kyosho TR-15

**3** OFNA Ultra GT LX



NITRO BUGGY





## NITRO TOURING/ON-ROAD

### HPI NITRO RS4 RACER 2

Nitro touring cars owe much of their popularity to the huge success of the Nitro RS4 line, and the Nitro RS4 Racer 2 is the most race-ready kit to roll out of HPI. Features such as equal-length suspension arms, Pro 2-style upper braces, purple-anodized chassis with countersunk screw holes, graphite upper deck and fiber disc brake make it easy to see why this car is your favorite for piston-powered touring action.

**2** Traxxas Nitro 4-TEC

**3** GS Racing Sonic

TRANSMITTER



### AIRTRONICS M8

Most of us buy a radio and stick with it for a few years. That probably explains why the M8 has won for four years straight! Of course, it doesn't hurt that it's logical and easy to program, stores more models in its memory than you have on your shelf and allows you to adjust everything on your car except the paint job.

**2** Hitec Lynx 3D

**3** Futaba 3PJ

## MOTOR

### TRINITY D4

Surprise! ... well, not really; you guys pick Trinity every year! Last year, the D4 won the "Innovation" category while the P2k took the motor win. This time, the D4 moves into the motor slot. It's definitely feature loaded: replaceable matched magnets, pure copper end-bell, triple surface-mounted capacitors, wind-specific armatures, crinkle-finish heat-dissipating can ... you get the idea; in fact, you get the idea so well that you voted the D4 number one.

**2** Trinity P2k

**3** Trinity Green Machine 3



## TRINITY MONSTER HORSEPOWER



This is the first year for the favorite fuel category, and you voted Trinity's Monster Horsepower as the top life-giving liquid for your nitro rides. According to Trinity, Monster Horsepower fuels are blended with 99.9 percent pure methanol and nitromethane and include a 12-percent blend of synthetic and castor oils for long engine life. All we know is it makes our nitro engines run well, and apparently, you feel the same.

**2** Dynamite Blue Thunder

**3** O'Donnell

FUEL





## TIRE

### PRO-LINE MASHER

Yawn ... another year, another Pro-Line off-road tire in the top spot. Hey; this category might not be exciting from a who's-gonna-win standpoint, but the tires are always cool. This time around, the Masher series in general (and the Maxx Masher in particular) pulled down piles of votes, and that makes sense, since RC these days is all Maxx, Maxx, Maxx. Pro-Line's revamp of the old Masher tread has brought new performance to the bar-tread tire concept, and if you have a monster truck, a set of Maxx Mashers or Masher 2000s is one of the hottest upgrades you can make.

- 2 Pro-Line Road Rage Series
- 3 Pro-Line V-Rage Series



## O.S. ENGINES .12 CV

O.S. strikes back! The popular .12 CV returns to the spotlight with its black, finned case, 10E rotary carburetor, giant-o "Heat Vent" head, included air cleaner and A3 glow plug. We lumped together all the votes for the bump- and pull-start versions of the CV (it's known as the CV-X when equipped with a pull-starter), and we did the same for other engines that are offered in pull-start and non-pull start versions but are otherwise identical.

- 2 Trinity/Picco .12
- 3 Trinity/Picco .15

## ELECTRONIC SPEED CONTROL

### NOVAK CYCLONE

For six years now, Novak has won this one, first with the Tempest Max and with the Cyclone since then. It's still the only truly user-programmable ESC available (via the Pit Wizard), but even if you don't own a Pit Wiz, you can still choose one of three built-in performance profiles to suit your needs. You can also tailor your Cyclone by picking one of two models; the newest models are the C2 for all cars and the TC2, which has been specially programmed for touring car duty.

- 2 LRP V7.1
- 3 Novak Super Rooster

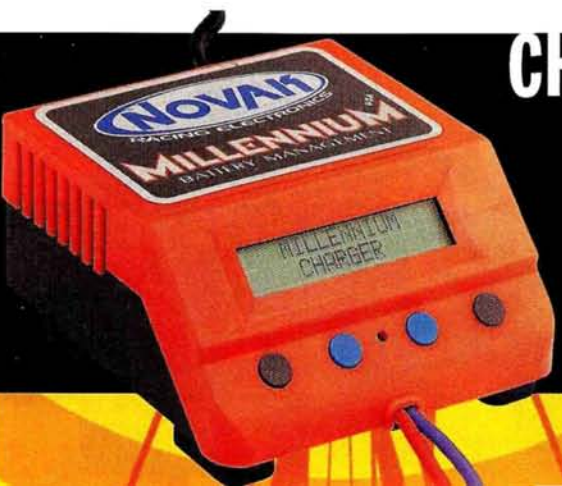


## CHARGER

### NOVAK MILLENNIUM

For the second year in a row, Novak's orange cube emerged victorious. With NiMH-friendly adjustable voltage threshold and amperage, a vivid LCD display, simple operation and receiver/transmitter pack settings, the Millennium is the charger to have. And from the number of votes it earned, it looks as if it will stay that way for quite a while.

- 2 MRC Super Brain
- 3 Dynamite Vision Peak





## PRO-LINE CHEVY SILVERADO

This is the first time a body has repeated its victory, but the Chevy Silverado isn't really one body; Pro-Line offers versions to suit monster, racing and street trucks from Associated, Traxxas and Team Losi. In addition to the good looks of the Bow Tie shells, we're sure you appreciate the loaded decal sheets and window masks—right?

- 2 Pro-Line Excursion
- 3 Pro-Line F-350

## BODY

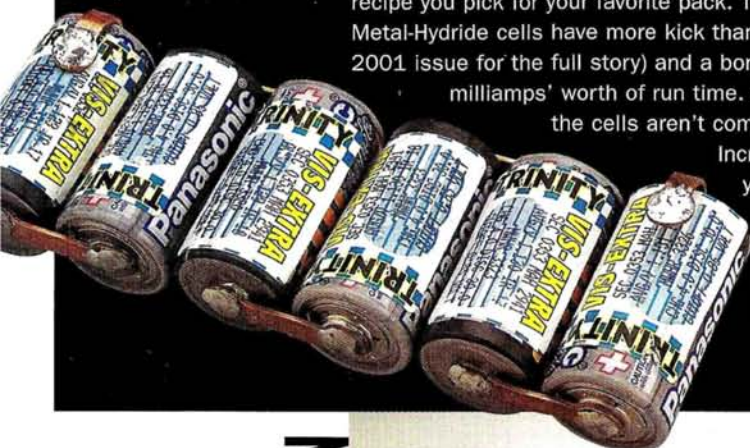


## BATTERY

### TRINITY STOCK METAL-HYDRIDE

Once again, Trinity VIS matching and the latest racing cells are the recipe you pick for your favorite pack. The red-hot Panasonic Stock Metal-Hydride cells have more kick than even Ni-Cds (see the April 2001 issue for the full story) and a bonus of 3000 Main-making milliamps' worth of run time. But—according to your votes—the cells aren't complete without Trinity's Voltage Increasing System (VIS), and when you buy Stock Metal-Hydride cells, they have to have the Trinity label.

- 2 Trinity Maxx Paxx
- 3 Trinity Sanyo 2400



## DRIVER



### BRIAN KINWALD—TRINITY/TEAM LOSI

Six years in a row; are you stalking this guy or what? Once again, ballot after ballot landed in the mailbag or popped out of cyberspace with Brian's name in the driver column. He wins a lot, and his mug is on everything from motor spray to the newest Losi buggy. No wonder he's your number one! The only thing left for Brian is his own sitcom with a talking puppet.

- 2 Yuichi Kanai
- 3 Billy Easton

## INNOVATION

### TRAXXAS MAXX TRUCKS

Is it the buttery-smooth pivot-ball independent suspension? Is it the T-Maxx's innovative reversing transmission or the E-Maxx's you-shift-it gearbox? Is it the eight coil-over shocks? The E-Maxx's dual-motor, high voltage power train? The T-Maxx's 2-speed? Oh wait; "all of the above" must be why you picked this powerful pair as the most innovative items on the RC scene.

- 2 Novak Brushless Motor
- 3 JHM Aero Engineering Auto Glow system ■





1<sup>st</sup>

LOOK



# Team Losi XXX-S

## DROP YOUR WEAPONS!

by George M. Gonzalez



**T**he engineering staff at Team Losi started with a clean computer screen when they set out to create the new XXX-S (Triple-XS) touring car. Their goal was to design a car that would be more efficient and easier to tune and maintain, and that would make it through a five-minute race without getting tweaked. On-track performance, however, was always the most important design criterion, and it was hard for chief designer Gil Losi Jr. not to grin when he filled me in on the prototype's latest successes. Triple-XS prototypes have been tested on tracks around the U.S. and the world, and early reports tell stories of faster lap times and shattered track records.

The preproduction Team Losi Triple-XS touring car shown on these pages accurately represents the final production cars. Unfortunately, this vehicle is not a "driver," so we'll just have to wait patiently for the production vehicle to be released before we can properly evaluate its performance. But features such as its completely sealed, single-belt drive train, quick-access spur gear and diffs, adjustable front and rear hinge-pin angles and roomy chassis layout with flexible battery mounting are sure to make the Triple-XS a very hard act to follow. Judge for yourself.

The shape of the molded-in belt tunnel combined with the clear gear cover gives the Triple-XS chassis a Batmobile appearance. This chassis looks so cool that it doesn't need a body! The roomy, low-center-of-gravity layout allows most popular receivers and speed controls to be mounted low. According to Team Losi, the Triple-XS uses 25 percent fewer screws than the Street Weapon, so it is significantly lighter (and easier to work on). For greater security, each load-bearing screw is backed up with a nut.

PHOTOS BY GEORGE M. GONZALEZ



## FRONT SUSPENSION

The Triple-XS has the same bottom-loading Hard Body aluminum body shocks as the Street Weapon, but you won't find any other suspension parts from the Weapon's parts bin. The shocks are bolted to a molded shock tower with several upper shock and inner camber link mounting locations to choose from, and the long suspension arms pivot on steel hinge pins that are held in place by separate front and rear suspension-arm mounts. Depending on which mounts you use, you can select one of three front anti-squat settings (0, 2, or 4 degrees). Steel turn-buckles are used to adjust camber, and optional hub carriers give you several caster options. The front and rear width is at the ROAR/IFMAR-legal 190mm. Front swaybar mounts are molded into the suspension arms, and the bulkhead is ready for the soon-to-be-released optional swaybars. The production Triple-XS will sport a foam bumper in addition to the sleek-looking molded unit shown here. The production kits will also include a body, but Team Losi has not decided which one to include. The Triple-XS has adjustable body mounts and is 190mm wide, so finding replacement bodies will not be a problem.

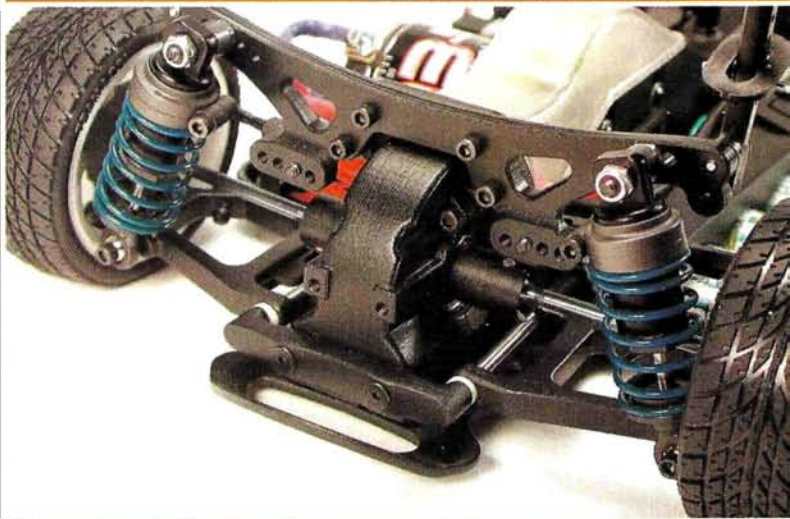


## STEERING

The Triple-XS features a conventional dual-bellcrank steering system. Each bellcrank arm pivots on metal bushings, but racers can add bearings for even smoother performance. After years of testing, the designers found that most racers preferred the maximum Ackerman position on the Street Weapon's bellcrank arms and rarely used the optional mounting positions. For this reason, there aren't any optional steering-link mounting holes on the bellcrank. The best news is that the Triple-XS features  $\frac{8}{32}$ -inch axles and includes both Losi-style and 12mm hex hubs. That means you can bolt all standard, zero-offset, 12mm wheels onto the Triple-XS, and you can still use your Street Weapon rubber from last season. The production kits will include Losi mesh wheels, racing tires and shaped inserts.

## REAR SUSPENSION

The rear suspension-arm mounts can be changed simultaneously to provide toe-in and anti-squat adjustment. MIP CVD axles are provided in the front and rear. The axles are not swept forward or rearward as they are on some other models, and the neutral drive-shaft angle increases efficiency and improves handling. According to Team Losi, you can access the front and rear ball differentials in less than four minutes by removing six screws. The diffs use the same balls, rings and thrust-bearing assemblies as Losi's popular Triple-X and Triple-XT off-road vehicles. This is a blessing for the Losi faithful and makes it that much easier for Joe Hobby Shop to stock parts. The Triple-XS is equipped with large, 42-tooth front and rear diff pulleys. An optional 41-tooth diff pulley will be available to provide over-drive or under-drive capabilities. An optional front one-way further broadens the ratio-tuning horizons. Setscrews that are threaded into the front and rear suspension arms allow down-travel adjustment. You can easily access the setscrews from under the chassis. The production kits will include a droop gauge for more accurate down-travel adjustment.



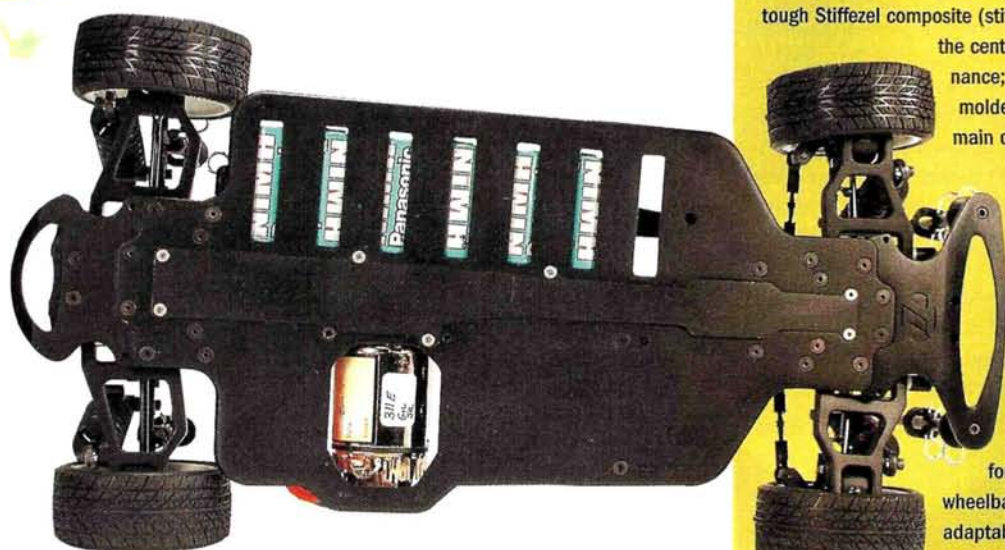
## SINGLE-BELT DRIVE

The single drive belt is routed around both the front and the rear diff and then pinched between the large-diameter main drive pulley and a bearing-supported idler pulley. According to Team Losi, the large-diameter pulleys have a greater load-carrying capacity that reduces belt fatigue. The larger pulleys also have more tooth engagement to prevent belt deformation.

The drive belt's routing system is designed for maximum efficiency. Because the drive belt actually tightens itself under load, it can be set very loosely without the risk of it skipping. The drive train and wheels spin on high-quality sealed bearings.

Although the drive train may seem complicated, it's actually very simple. It has very few parts compared with other touring-car models, and all of its components, including the spur gear and diffs, can be accessed easily. The drive train is also completely sealed against the elements.





### BATTERY TRAY

Seven battery slots are molded into the chassis' right side to allow a 6-cell battery pack to be positioned forward or rearward to adjust weight distribution. For added convenience, you can flip the molded battery strap to accommodate either side-by-side or stick packs. Check out how the wires have been neatly routed behind a gap in the chassis behind the spur gear—sweet! Unlike the prototype shown here, the production vehicle will have a 48-pitch spur gear and main drive pulley molded as a one-piece unit. Optional spur-gear/drive-pulley clusters will be available for tuning versatility, as will an optional universal spur-gear mount that will allow you to use aftermarket spur gears (including 64-pitch gears). Gearing shouldn't be a problem because the Triple-XS drive train is designed to accommodate the full spectrum of pinion- and spur-gear ratios. A small rectangular "window" molded in the chassis tunnel lets you inspect the pinion/spur-gear mesh; the opening is sealed with a removable rubber cap. The belt tensioner is directly in front of the spur gear and is easily adjusted without disassembly. The button-head screw directly above the rubber cap is used to adjust belt tension.

### CHASSIS

The Triple-XS features a molded semi-tub chassis made from the Losi's rigid, tough Stiffezel composite (stiff-as-hell, get it?). The long cover that runs down the center of the chassis need not be removed for maintenance; it was designed as a separate part because, if molded as an integral piece, it might have affected the main chassis tweak.

As you can see, the motor is mounted on the left side of the chassis. It is just slightly rear of the chassis' centerline, unlike the Street Weapon's motor, which is slightly in front of the centerline. The large opening in the chassis allows the motor to be mounted flush with the bottom for the lowest possible center of gravity; it also allows exposure to cooling airflow.

Spacers installed on the outer hinge pins allow you to move the front and rear axle carriers forward or rearward to adjust the vehicle's overall wheelbase. This is a powerful feature that makes the car adaptable to both large and small tracks and low- and high-bite conditions.

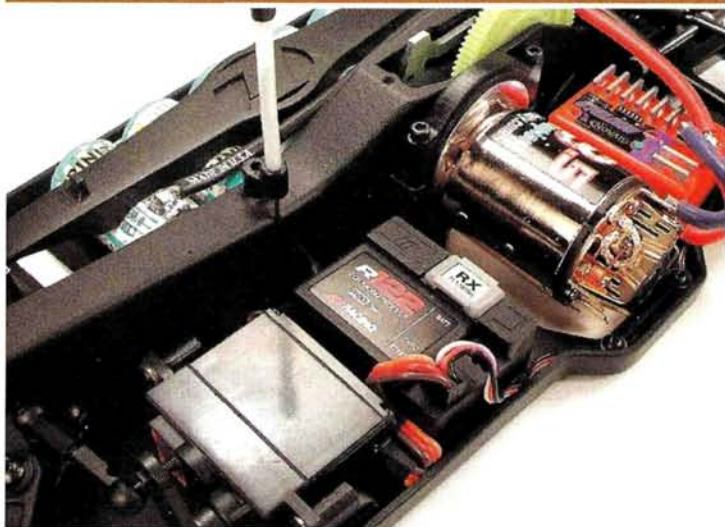


### ELECTRONIC MOUNTING

The electronics are neatly arranged on the left side of the chassis. The wires from the ESC are routed through small channels molded into the chassis and then secured with screws that keep them away from the motor. Standard size electronics are used on the prototype to show how roomy the chassis is. You can also see the cam-style aluminum motor mount and locking clamp system, which is similar to the Street Weapon's motor-mounting system.

### THE VERDICT—SO FAR

Does the Triple-XS have what it takes to outperform its competitors in the hotly contested pro-electric TC segment? Until production cars start to hit the track, we can only speculate. Losi has certainly held nothing back in creativity and innovation and seems to have thrown out a lot of what most of us take for granted as basic TC design elements. It would have been easy to crank out just another two-belt tourer; instead, Team Losi has stuck to some unique



### SOURCE GUIDE

#### TEAM LOSI

Distributed by Horizon Hobby Inc., 4105 Fieldstone Rd., Champaign, IL 61822; (217) 355-9511; [www.horizonhobby.com](http://www.horizonhobby.com).

designs that just might point to a better way to build a touring car. We'll have to drive a production car to confirm that. In the meantime, the Triple-XS looks like a real threat; it has already bettered some long-standing track records in prototype form, and it joins the HPI RS4 Pro 3 (reviewed in this issue) at the vanguard of competition electric sedan designs. This summer's TC season will be the hottest ever! ■



by Greg Vogel and Derek Buono

## Who's going to the 2001 Off-Road Worlds?

The 2001 1/10 Electric Off-Road Worlds will be held on the grounds of the International Pretoria Show in South Africa. Needless to say, the factories don't send just anybody to such an important (and expensive to get to) event. So far, these are the guys who have made the cut:

**Associated.** Four drivers will compete in Africa on Associated's tab: Craig Drescher, Mark Pavidis, Scott Hughes and Billy Easton. Motor man Mike Reedy will accompany them.

**Team Losi.** Losi currently plans to send five drivers: Brian Kinwald, Matt Francis, Jukka Steenari and two others who are as yet unnamed. Gil Losi Jr. will lend technical support to the select five.

**Schumacher.** Teemu Leino and Markus Luebke will be the only factory-backed drivers shipped to Africa on Schumacher's dime.

**Kyosho.** Like Schumacher, Kyosho is playing it close to the vest with just two drivers—Andy Smolnik and Gene Hickerson (photo not available)—competing.

Just think—one of these mugs could belong to the next world champion—scary!



Steenari



Leino



Hughes



Francis



Pavidis



Hickerson



Luebke



Kinwald



Smolnik



Easton



Drescher

## THIS NUT FELL FAR FROM THE TREE



Team Associated/Pro-Line driver Scott Hughes, aka "Squirrel," has been observed eating the competition's antennas and looking for his gum, but lately, he has been running around the track belting out the tunes of Christina Aguilera (including the ones in Spanish). As a result, Sony Records is considering the Squirrel as a possible replacement for one of the Backstreet Boys.

## Matt Francis brings a Nor'easter

Matt Francis made the long haul from his home in sunny California to Long Island, NY, for this year's March Madness race at Long Island Raceway. Matt and his Trinity-powered Losi Triple-X and Triple-XT ran against some local hot-shots who gave their all to beat the former world champ. Although some of the local drivers pressured him to the max, Matt took down the wins and went home with the hardware. As you can see, he had a lot of camera time with the two beautiful trophy girls. I mean women. Make that people. Congratulations to Matt and all the drivers who participated in this year's March Madness race. Following is a list of the top three finishers in each class:



### 2WD Stock

- 1 Matt Francis
- 2 Rob Betts
- 3 Vincent Nocella

### Truck Stock

- 1 Anthony Mazzara
- 2 Lou Brabowski
- 3 Tim Powers

### 4WD Mod

- 1 Anthony Mazzara
- 2 Chris Sytsma
- 3 Jimmy Franz

### 2WD Mod

- 1 Matt Francis
- 2 Rob Betts
- 3 Vincent Nocella

### Truck Mod

- 1 Matt Francis
- 2 Rob Betts
- 3 Vincent Nocella

## MRX-2, 2?

The rumor has been confirmed; Mugen is working on a replacement for the MRX-2 that is expected to debut at the upcoming On-Road Worlds. Mugen is being very tightlipped about the car, but as soon as we hear any news or get our hands on some spy shots, we'll pass them along to you.

## SITE SEEING



### WWW.BEATERZ.COM

We couldn't resist showing you this site. It's full of wrecked cars and—well, things you wouldn't see driving in a circus. Maybe you could post a picture of your "unique" ride there.



# SPEED SHOP



## Schumacher/Take-Off TC rubber slicks

Tire selection has become a science of sorts. To squeeze every  $\frac{1}{10}$  second off lap times, tire selection must take temperature and type of surface into consideration. Take-Off, imported by Schumacher USA, offers a new series of tires. The CS series is coded for track temperatures ranging from 32 to 156 degrees, which makes it a simpler matter to select the correct four tires. Each pair comes with a medium insert that can be swapped with any of the two other insert choices: medium-soft and medium-hard.

**CS-22—CS22 (32 to 86 degrees F), CS-27—CS27 (50 to 122 degrees F), CS-32—CS32 (68 to 140 degrees F), CS-37—CS37 (104 to 156 degrees F); \$14.99.**

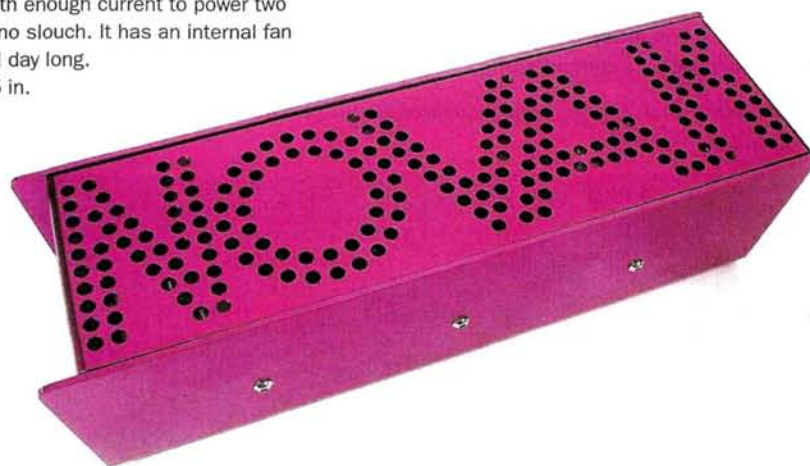
## Novak N-power

The N-power cranks out 10 amps and doesn't take up much space. With enough current to power two Millennium chargers (with a maximum combined draw of 10 amps), it's no slouch. It has an internal fan and overload protection, so the N-power is ready to supply 10 amps all day long.

Specs: output—14 volts DC @ 10 amps max; size—8.86x2.63x2.5 in.

(225x66.8x63.5mm); weight—1.53 lb.

**N-power—4900, \$199.99.**



## RC1 Graphite composite TC wheels

These may look like regular 6-spoke wheels, but if you pick them up, you'll notice how stiff they are. They are molded from a blend of plastic and graphite composite for added stiffness and are available in 24, 25 and 26mm widths and 0 and 2 degrees offset.

**24mm—part no. CG001, \$14; 25mm—CG002, \$15;**

**26mm—CG003, \$16.**



## TRACK THREADS

### XXX Main Hoody and Girlie T

You can have all the blue aluminum in the world to make you car look fast, but if you don't have the look yourself, you can get it from XXX Main. Check out the "Hoody," available in white and black with the XXX Main logo blazing on the front. And if your girlfriend feels left out of the racing scene, XXX Main has the shirt for her (available only in small and medium). **Call for sizes and pricing.**









# 5 QUESTIONS

Age: 25

**Last big win:** 2000 National Touring Car Championship; 11-time European champ  
**Sponsors:** Associated, Reedy, Pro-Line, LRP, Kimbrough, O'Shea, KO Propo

**Favorite Austin**

**Powers quote:** "Grrrr, baby! Grrrr!"

**When I'm not racing:**

I'm hard at work promoting Associated products and—when I get a chance—skiing.



**Craig Drescher**

**Radio Control Car Action: Have you ever had your mojo stolen?**

**Craig Drescher:** A couple of times; I think everybody loses it a couple of times. I'm pleased to announce it's back in full swing!

**RCCA: How many times have you driven past Big Ben and Parliament?**

**CD:** I have a friend called Big Ben, and he lives down the street, so I would say on average—twice daily. Parliament? Maybe twice; that's a tourist thing.

**RCCA: Is it difficult being Associated's European guy?**

**CD:** It's very interesting. It would be much easier if I spoke all the languages, but most people are real pleasures to deal with, and they speak better English than I do.

**RCCA: Do you own a frilly cravat or Italian leather shoes?**

**CD:** Italian leather shoes. The cravat isn't mine, honest!

**RCCA: Is there a big difference between European- and American-style racing?**

**CD:** It used to be bigger. On-road is very similar, but in off-road, you Yanks have a big advantage on your freestyle super-cross tracks. Once you get used to "big air," the advantage is reduced.

## UNDER THE HOOD

CRAIG DRESCHER'S **CRAZY BRIT SETUP**



As you can see here, Craig's TC3 is a straight-up Factory Team kit; proof that you don't need tons of aftermarket parts to go fast—just driving skill.

### FACTORY OPTIONS

Craig's car is basically a stock Factory Team TC3, but "stock" includes a lot of parts that are usually hop-ups, such as these Factory Team items:

■ Threaded shock bodies ■ Unobtainium shock shafts ■ Blue motor mount and clamp ■ Aluminum hex drives ■ Blue screws ■ Graphite components (chassis, chassis braces and shock towers)

### RICHARD'S STANDARD SETUP

|                                    | FRONT               | REAR                |
|------------------------------------|---------------------|---------------------|
| Caster/squat                       | 2°                  | Stock               |
| Camber                             | 1.5°                | 1°                  |
| Toe-in/out                         | 0°                  | 3° in               |
| Ride height                        | 5mm                 | 5mm                 |
| Swaybar                            | —                   | Stock               |
| Shocks                             |                     |                     |
| —fluid                             | 40WT                | 30WT                |
| —piston                            | No. 2               | No. 2               |
| —spring                            | Gold                | Silver              |
| —mounting location (shock tower)   | Outside             | Outside             |
| Camber-rod location (hub/bulkhead) | Outside/upper inner | Outside/upper inner |

### MODIFICATIONS

Craig's only modification was to remove the bearing seals and flush the grease out with motor spray and then apply thin oil. At the highest levels of competition, every little bit of friction matters; removing the seals and grease from the stock bearings frees up the drive train.

### EQUIPMENT

**RADIO SYSTEM:** KO Propo Mars  
**STEERING SERVOS:** (throttle/steering) Airtronics  
**ESC:** LRP V7.1  
**MOTOR:** Reedy Fury Millennium Wind  
**GEARING (PINION/SPUR):** 29/62 on 12-turn (current motor limit in European National series)  
**TIRES:** (F/R) Pro-Line H13 slicks  
**RIMS:** Pro-Line Velocity  
**BODY:** Pro-Line Stratus





## FACTORY DRIVER HOT MOD

We studied Craig's car long and hard, looking for some modified parts. We passed it around the office, but no one could find anything; the car is bone stock. We did, however, note this handy tip for preventing solder from dripping onto the cell and possibly causing a short, or just ruining the shrink-wrap. Craig places a piece of servo tape on top of the cell, just under the solder tab, in case any solder drips off.



This picture shows Craig's crazy Brit shock-and-camber-rod positions.



It's all about neat wiring. If you have a messy rig job, you're just not gonna go fast.



## LAST LAP

**The latest high-capacity cells allow more run time than ever. Should races be longer to exploit this, or stay the same so everyone makes run time more easily?**

There is nothing better in RC racing than more RC racing. I remember racing 4 minutes in stock oval with 1200s. Even a good sport pack will do 6 minutes or more with a stock motor. I get a usable 10 to 12 minutes of run time with my Triple-XT. More race time? Bring it on.

—Sean Mason

I think that they should keep the races the same because some people don't have the high capacity batteries.

—Joe Faulk

I'm a beginner in this hobby, but I don't think organizations should make the race longer because it wouldn't be fair to the racers who can't afford better batteries.

—Nathan Darrach

I think they should stay the same length. Not everyone is going to buy those high-capacity cells. If you keep the races the same length of time, everyone who has the high-capacity cells will have it easier in racing.

—Eric Talbacka

Racing should definitely stay the same. Although the new high-capacity cells allow more run time, some people just can't afford more expensive cells. That means they won't have the necessary equipment to race, and that isn't what the hobby needs.

—Matthew Wolfe

### SOURCE GUIDE

#### AIRTRONICS

1185 Stanford Ct., Anaheim, CA 92805;  
(714) 978-1895;  
www.airtronics.net.

#### FACTORY TEAM

Distributed by Associated  
Electrics, 3585 Cadillac Ave.,  
Costa Mesa, CA 92626-1403;  
(714) 850-9342; www.rc10.com;  
www.teamassociated.com.

#### HARDCORE RACING COMPONENTS

25435 Rye Canyon Rd.,  
Valencia, CA 91355;  
(661) 294-5032;  
www.racinghardcore.com.

#### KO PROPO USA INC.

16012 South Western Ave., Ste.  
308, Gardena, CA 90247;  
(310) 532-9355;  
info@kopropo.com;  
www.kopropo.co.uk.

#### NOVAK ELECTRONICS INC.

18910 Teller Ave., Irvine, CA  
92612; (949) 833-8873;  
www.teamnovak.com.

#### OFNA RACING

22692 Granite Way, Ste. B,  
Laguna Hills, CA 92653;  
(949) 586-2910; www.ofna.com.

#### PRO-LINE/JACO

P.O. Box 456, Beaumont, CA  
92223; (909) 849-9781;  
www.pro-lineracing.com.

#### REEDY MODIFIEDS/TEAM ASSOCIATED

3585 Cadillac Ave., Costa  
Mesa, CA 92626;  
(714) 850-9342;  
www.teamassociated.com.

#### SCHUMACHER USA

6302 Benjamin Rd., Ste. 404,  
Tampa, FL 33634;  
(813) 889-9691;  
www.racing-cars.com.

#### SULLIVAN PRODUCTS

One North Haven St.,  
Baltimore, MD 21224;  
(410) 732-3500;  
www.sullivanproducts.com.

#### XXX MAIN

P.O. Box 42198, 128 Queen  
St. S., Mississauga, Ontario,  
Canada L5M 4Z0; (877) 744-  
6793; www.xxxmain.com.

### NEXT MONTH'S QUESTION

**If you could have your own  
theme music played as you  
climbed the drivers' stand,  
which tune would you  
choose, and why?**

Respond by clicking "Last Lap" at  
www.rccaraction.com, or email your  
responses to gregv@alrge.com.

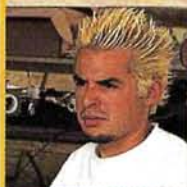


# Losi strikes gold

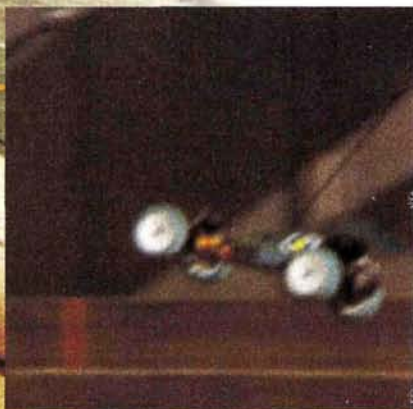
by Greg Vogel

**T**he Florida Winterchamps is just as prestigious as many sanctioned national races, and I was excited when I was chosen to cover it. A blast of warm air hit me as I left the airport in Tampa and gave me the feeling it would be a good weekend. The day was perfect—sunny, warm and dry—as I arrived trackside. Walking through the pits, I noticed Losi's entire team on hand: Francis, Kinwald, the Drake, Hodapp, Steenari, Dunbar. Even Pops Losi and Gil Jr. were there, stopwatches in hand, clocking team drivers' lap times. In the Associated tent, Easton, Pavidis, Scott "the Squirrel" Hughes, were wrenching on their rides, along with Saxton and Tebo who had come to try out some electric power.

Sponsored by  
Team Losi and  
Radio Control  
Car Action



Travis Amezcua keeps a lookout for the guy who stole his hair color.



The Squirrel offered a reward to anyone who had seen his gum.

# FL





Jeremy Kortz put his Kyosho Ultima RB in the TQ slot in Stock Buggy.



Shanel Smith presents the trophies. Sorry, guys, she's taken.



Jukka had a great weekend: his Losi Double-X4 and Triple-XT were dialed, and he won both Mains. • Three generations of Losis attended the Winterchamps. Here is Pops Losi and his grandson. • Jared Scott's dog Reedy. As you can see, Reedy was the model for various Pro-Line decals and for Richard Saxton's Truck body.



# WINTER CHAMPS





## WINNERS' CARS



Jukka Steenari's A-main-winning, Orion-powered Losi Double-X4.



Brian Kinwald's A-main-winning, Trinity-powered Losi Triple-X.



Jukka Steenari's A-main-winning, Orion-powered Losi Triple-X.

In the Kyosho tent, Kortz and Degani were getting their cars ready for the stock class, and at Schumacher's, Leino was working on his cars. I also noticed the sea of blue Losi Spec tires in the pits that the stock racers were using (see "Battle of the blues" sidebar).

The track had an incredibly smooth racing surface and the drivers used pin tires. To ensure that everyone ran under the same conditions, the track crew blew dust

off the track with leaf blowers and swept the turns before each heat. Drivers used the track's long front straight to clamp the throttle and hit high speeds before braking at the end. The infield had a tricky double, but most drivers got a handle on it and cleared it every time. Other jumps were fairly easy, but the many turns made it a driver's track. The alert crew ran a fantastic show, and each race went off like clockwork.

Now let's talk Mains. For the first time at the Winterchamps, triple A-mains were run in all classes (the stock guys used to run a single A-main). The stock Main drivers were allowed to purchase an additional set of tires if they felt it necessary. Here's how the modified Mains turned out.

### TRUCK MODIFIED A-1

All but one of the trucks jumped the start and were lined up again for the restart. Jukka Steenari and his Orion-powered Losi Triple-XT led the race early, with Brian Kinwald and his Trinity-powered Losi Triple-XT in a close second, and Brian Dunbar third driving his Losi Triple-XT. Dunbar passed Kinwald, but the Dirtinator regained his position, only to have it stolen again by Dunbar seconds later. Billy Easton's Reedy AE RC10 T3 was on the move and pulled close to challenge Dunbar. Easton moved up, as Dunbar stuffed it. Ryan Eckert moved into third after Dunbar's hang-up, but Dunbar got by about a lap later. Easton closed in on Steenari. Dunbar laid down the power and made his move past Steenari into the lead. On the straight, Steenari made a final run at Dunbar but couldn't get by.

### A-2

Steenari took the lead, with Dunbar second, Kinwald third and Easton in close pursuit. Easton tried to make a move but put it up on two wheels and had to recover, which cost him some running room. Hodapp moved into the fourth spot. With a minute left, Dunbar got caught up on a pipe, but thanks to a quick marshal, he lost no time; Greg Hodapp moved up and Kinwald came with him. Dave Montgomery moved up to second, with Hodapp in third. Steenari won, Montgomery took second and Hodapp slipped over the line third.

### A-3

Steenari led early once again, with Dunbar second and Kinwald third. Travis Amezcua moved up from ninth to fourth. Kinwald's huge move from nowhere gave him the lead and took Amezcua with him. But Steenari got right back into second with Kinwald leading and Steenari inches away, Amezcua briefly had third until Montgomery squeezed by him. But those positions didn't stick for long. JR Mitch moved into third as they hit the straight-

away. Kinwald pulled ahead, then Steenari hung his truck up on the pipe, and Mitch got by to take second, Steenari dropped way back to seventh, Montgomery now in third. Mitch reeled Kinwald in hard. Easton moved up into third, reeling in Mitch with seconds left. Kinwald for the win, then Mitch and Easton.

### BUGGY MODIFIED A-1

Brian Dunbar, TQ with his Phantom SMC-powered Losi Triple-X, led the first lap, with Brian Kinwald's Trinity Losi Triple-X close behind and Jason Corl's Orion-powered Losi Triple-X on his motor guard. Corl and Easton got together but separated quickly, and Easton got ahead of Corl. Kinwald took the lead over Dunbar through the S-turns. Hodapp caught up and put his car in third, and Montgomery followed. Hodapp hung up on a pipe; Montgomery moved up. Kinwald stretched his lead, with Dunbar second, while Easton looked to take the position from Montgomery. Easton stuffed it on a barrier, and Hodapp caught up to Montgomery. Kinwald won; Dunbar right behind him, and Montgomery was third.

### A-2

Dunbar led, with Kinwald second and Matt Francis third. Dunbar got caught up on a pipe; Kinwald moved up to first, then it was Francis, Corl and Pavidis. Pavidis put his Reedy AE B3 into third, and Montgomery was fourth (but not for long). Hodapp moved up to fourth. Kinwald hung his car up, and Francis got by to gain the lead, but within seconds, Francis hung his car up, too, and Kinwald regained the lead. Kinwald hit a pipe, and Francis laid down the power and beat a hard-charging Kinwald over the line as Pavidis slipped into third.

### A-3

Dunbar led early, with Kinwald a close second and Hodapp third. Francis and Pavidis ran in that order behind the lead pack. Dunbar got around Kinwald close to the middle of the race, but within a lap, Dunbar caught a pipe for a split second—enough for Kinwald to get back around him. Then the hard-charging pack really



Looks like Jared's Scott's dog, Reedy, just signed a sunglasses sponsorship deal. Note to dog: the shades go on the other end.



mixed up the order: Hodapp moved into first after an incident, Kinwald was back to second, with Dunbar running third with a close-following Brown. And that's how they finished.

## 4 WHEEL DRIVE MODIFIED A-1

Jukka Steenari and his Orion Losi Double-X4 took off to an excellent start, with Teemu Leino and his Orion Schumacher Cat 3000 really close, almost touching wheels through the turns and both clocking 31-second laps. Dunbar was also on fire and clocked equally fast laps. Leino got sideways, but Dunbar couldn't get by, as Jimmy Babcock followed in fourth. Steenari now clocked 29-second laps, but Leino was clocking slightly faster still and reeled Steenari back in. Dunbar was close in third, and all three ran like a bullet train with a minute to go. Steenari crossed the line, as Leino and Dunbar swapped paint behind him. Dunbar showed real driving professionalism and held up for Leino after an incident, then he got by Leino cleanly and crossed the line  $\frac{3}{10}$  second ahead of him.

## A-2

Steenari, Francis and Marcus Luebke ran nose to tail for the first couple of laps. Francis bobbled but kept his position. Scott Brown moved into third as Francis pulled



## BATTLE of the blues

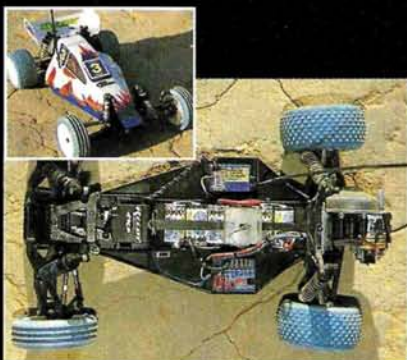
We're seeing more and more of the funky blue Losi Spec tires. They have become a popular part of Spec and stock racing and were selected as the Spec tire for stock at this year's Winterchamps. For a \$70 entry fee (definitely a bargain, considering all the freebies), all stock drivers were given a Peak Spitfire stock motor and one set of front and one set of rear Losi blue Spec tires and a T-shirt. Drivers running triple A-mains were allowed to buy an additional set of tires.



## WINNERS' CARS



**John Walters' A-main Stock Truck-winning, Team Losi Triple-XT.**



**Dan Rodriguez' A-main Stock Buggy-winning, Team Associated B3.**



ahead of Steenari and was all over him. Dunbar charged hard in fourth. But Steenari showed off his world-champion skills and kept a good distance ahead of Francis. Brown held his own in third with some pressure from Dunbar in fourth. They crossed the line: Steenari, Francis and Brown.

## A-3

Leino took the early lead. Steenari took the overall win, so he didn't start here. Francis and Brown followed Leino for the

first couple of laps; however, Scott Brown quickly moved up to second and put lots of pressure on Leino. They were within inches of each other, and Francis made a move to regain his spot and got by Brown. Dunbar was close to the front pack and appeared to be a threat to them if anything happened. But Leino was fast, and whenever he hit the straight, he pulled away; but through the infield, Francis was stronger and reeled Leino back. Kinwald entered the picture and put pressure on the top three with just seconds left. During the last lap, Francis



## WINNERS



| FIN. | QUAL. | DRIVER           | VEHICLE   | MOTOR | ESC   | TRANSMITTER   | BATTERY | TIRES (F/R) | GEARING |
|------|-------|------------------|-----------|-------|-------|---------------|---------|-------------|---------|
| 1    | 3     | Dan Rodriguez    | RC10 B3   | H     | LRP   | Airtronics M8 | Reedy   | L           | 23/81   |
| 2    | 1     | Jeremy Kortz     | Ultima RB | A     | Novak | JR R-1        | Peak    | O           | 25/81   |
| 3    | 2     | John Walters     | Triple-X  | N     | LRP   | Airtronics M8 | Fantom  | S           | 25/84   |
| 4    | 4     | Greg Degani      | Ultima RB | D     | LRP   | Futaba S3PJ   | Orion   | I           | 26/81   |
| 5    | 9     | Leon McIntosh    | RC10 B3   | O     | LRP   | Airtronics M8 | Reedy   |             | 23/81   |
| 6    | 6     | Dave Henry       | Ultima RB | U     | Novak | Futaba 3PJ    | INS*    | S           | 25/81   |
| 7    | 5     | Alex Sturgeon    | Triple-X  | T     | Novak | Airtronics M8 | INS     | P           | 22/81   |
| 8    |       | Andy Smolnik     | Ultima RB |       | LRP   | Futaba 3PJ    | Trinity | E           | 25/81   |
| 9    | 10    | Greg Powrie      | Triple-X  |       | LRP   | KO Mars       | SMC     | C           | 25/78   |
| 10   | 8     | Brian Chassaniol | INS       |       | LRP   | Airtronics M8 | Peak    |             | 25/82   |



|    |    |                   |           |   |       |               |             |   |        |
|----|----|-------------------|-----------|---|-------|---------------|-------------|---|--------|
| 1  | 1  | John Walters      | Triple-XT | H | LRP   | Airtronics M8 | Fantom      | L | 21/86  |
| 2  | 5  | Jim Myers         | Triple-XT | A | Novak | Airtronics M8 | Trinity     | O | 26/100 |
| 3  | 2  | Jared Scott       | RC10 T3   | N | LRP   | Airtronics M8 | Reedy       | S | INS    |
| 4  |    | Andy Smolnik      | Ultima    | D | LRP   | Futaba 3PJ    | Trinity     | I | 23/86  |
| 5  | 4  | Kent Hedrick      | RC10 T3   | O | LRP   | Airtronics M8 | World Class |   | 20/87  |
| 6  | 6  | Travis Scrambling | RC10 T3   | U | LRP   | Airtronics M8 | Reedy       | S | 20/87  |
| 7  | 3  | Kyle Skidmore     | RC10 T3   | T | LRP   | JR R-1        | Reedy       | P | 19/87  |
| 8  |    | James Ingram      | RC10 T3   |   | LRP   | Airtronics M8 | World Class | E | 19/87  |
| 9  | 10 | Caleb O'Hara      | RC10 T3   |   | LRP   | Airtronics M8 | Reedy       | C | 23/85  |
| 10 | 7  | Joe Pillars       | Triple-XT |   | LRP   | Hitec Lynx 3D | Fantom      |   | 20/88  |



|    |    |                 |             |         |       |               |         |                         |       |
|----|----|-----------------|-------------|---------|-------|---------------|---------|-------------------------|-------|
| 1  | 2  | Brian Kinwald   | Triple-X KE | Trinity | Novak | Airtronics M8 | Trinity | Losi taper/taper        | 23/92 |
| 2  | 5  | Greg Hodapp     | Triple-X    | Peak    | Novak | Airtronics M8 | Peak    | Losi taper/taper        | 21/78 |
| 3  | 1  | Brian Dunbar    | Triple-X    | Fantom  | LRP   | Airtronics M8 | SMC     | Losi rib/taper          | 23/78 |
| 4  | 4  | Matt Francis    | Triple-X    | Trinity | LRP   | JR R-1        | Trinity | Losi taper/taper        | 24/92 |
| 5  | 8  | Mark Pavidis    | RC10 B3     | Reedy   | LRP   | Airtronics M8 | Reedy   | Pro-Line rib/Sq. Fuzzie | 20/81 |
| 6  | 9  | Dave Montgomery | Triple-X    | Orion   | LRP   | Airtronics M8 | Orion   | Losi Widebody/taper     | 22/78 |
| 7  | 6  | Scott Brown     | Triple-X    | Trinity | Novak | JR R-1        | Trinity | Losi taper/taper        | 22/82 |
| 8  | 10 | Hurbert Honigl  | Triple-X    | LRP     | LRP   | Sanwa M8      | LRP     | Losi taper/taper        | 20/84 |
| 9  | 7  | Billy Easton    | Triple-X    | Reedy   | LRP   | Airtronics M8 | Reedy   | Losi taper/X2000        | 19/81 |
| 10 | 3  | Jason Corl      | Triple-X    | Orion   | LRP   | Airtronics M8 | Orion   | Losi                    | 21/78 |



|    |    |                 |           |         |       |               |         |                        |        |
|----|----|-----------------|-----------|---------|-------|---------------|---------|------------------------|--------|
| 1  | 1  | Jukka Steenari  | Triple-XT | Orion   | Novak | Sanwa M8      | Orion   | Losi Directional/taper | 16/86  |
| 2  | 3  | Brian Kinwald   | Triple-XT | Trinity | Novak | Airtronics M8 | Trinity | Losi 8-rib/taper       | 19/100 |
| 3  | 7  | Dave Montgomery | Triple-XT | Orion   | LRP   | Airtronics M8 | Orion   | Losi 8-rib/taper       | 17/86  |
| 4  | 2  | Brian Dunbar    | Triple-XT | Fantom  | LRP   | Airtronics M8 | SMC     | Losi 8-rib/taper       | 18/88  |
| 5  | 4  | Billy Easton    | RC10 T3   | Reedy   | LRP   | Airtronics M8 | Reedy   | Losi 8-rib/taper       | 18/90  |
| 6  | 10 | Scott Brown     | Triple-XT | Trinity | Novak | JR R-1        | Trinity | Losi taper/taper       | 18/86  |
| 7  | 8  | JR Mitch        | RC10 T3   | Reedy   | LRP   | Hitec Lynx 3D | Reedy   | Pro-Line               | INS    |
| 8  | 5  | Greg Hodapp     | Triple-XT | Peak    | Novak | Airtronics    | Peak    | Losi 8-rib/taper       | 17/88  |
| 9  | 9  | Travis Amezcua  | RC10 T3   | Peak    | Novak | JR R-1        | Peak    | Pro-Line               | 18/87  |
| 10 | 6  | Ryan Eckert     | Triple-XT | Peak    | Novak | Airtronics M8 | Peak    | Losi 8-rib/taper       | INS    |



|    |    |                 |              |         |       |               |         |                      |        |
|----|----|-----------------|--------------|---------|-------|---------------|---------|----------------------|--------|
| 1  | 1  | Jukka Steenari  | Double-X4 WE | Orion   | Novak | Sanwa M8      | Orion   | Losi taper/taper     | 15/84  |
| 2  | 3  | Matt Francis    | Double-X4    | Trinity | LRP   | JR R-1        | Trinity | Losi taper/taper     | 21/100 |
| 3  | 2  | Teemu Leino     | Cat 3000     | Orion   | LRP   | Sanwa M8      | Orion   | Pro-Line             | 15/92  |
| 4  |    | Brian Dunbar    | Double-X4    | Fantom  | LRP   | Airtronics M8 | SMC     | Losi taper/taper     | 18/86  |
| 5  | 9  | Brian Kinwald   | Double-X4 WE | Trinity | Novak | Airtronics M8 | Trinity | Losi taper/BK Bar    | 22/100 |
| 6  | 5  | Scott Brown     | Double-X4    | Trinity | Novak | JR R-1        | Trinity | Losi taper/taper     | 18/84  |
| 7  | 4  | Marcus Luebke   | Cat 3000     | Orion   | CS    | Sanwa M8      | Orion   | Pro-Line             | 15/89  |
| 8  | 6  | Dave Montgomery | Double-X4    | Orion   | LRP   | Airtronics M8 | Orion   | Losi Blockhead/taper | 18/84  |
| 9  | 8  | Jimmy Babcock   | Double-X4    | Orion   | LRP   | Airtronics M8 | Orion   | Losi taper/taper     | 16/84  |
| 10 | 10 | Hurbert Honigl  | Double-X4    | LRP     | LRP   | Samwa M8      | LRP     | Losi taper/taper     | 18/86  |

\*INS - information not supplied

made a huge effort to get by Leino, but he ran a clean race and didn't take Leino out, so Leino squeaked by the line first, with Francis right on his back bumper, and Brown crossed third.

### THE WRAP-UP

Triple A-Mains made this event very exciting, as all the drivers hung it out on the line each race to gather points to place as high as they could. And there was just as much fun in the pits as on the track: the traditional football game, boasting about what

drivers had done the night before and jokes galore. Everything ran so smoothly that the days just flew by. Plan to be in Florida next year for the Winterchamps. The good racing, friendly drivers and overall great fun epitomize how great a "big race" experience can be. ■







# TOURING CAR WHEEL

## HOOP DREAMS

by Bob Hastings

**W**hat's the fastest way to change your touring car's looks and maybe even improve its handling? Upgrade your wheels! Whether your ride does battle at the track or rarely ventures beyond the driveway, nothing will dress it up like a slick set of rims. If your sedan is ready for a quick beauty treatment, this is your article. We've gathered the current crop of wheels from the most popular manufacturers, and arranged them alphabetically by brand so you can pick the hoops with the style you're looking for. There are even more wheels available than we've listed here, but we've tried to include the latest and most widely available varieties. We've also included plenty of tech info to help you understand what your new wheels can do for your ride—besides make it look cool.

### HG

HG offers five wheel styles that look just like real aluminum—because they are real aluminum. The machined rims use a triangular hub pattern that accommodates standard 12mm hexes.



#### LEMANS

**Width:** 1 in. (25.3mm)  
**Diameter:** 1.9 in. (48.2mm)  
**Offset:** 2mm  
**Colors:** polished aluminum only (part no. 8400)  
**Price:** \$29.95/pr.



#### CARRERA

**Width:** 1 in. (25.3mm)  
**Diameter:** 1.9 in. (48.2mm)  
**Offset:** 2mm  
**Colors:** polished aluminum only (part no. 8401)  
**Price:** \$29.95/pr.



#### SEBRING

**Width:** 1 in. (25.3mm)  
**Diameter:** 1.9 in. (48.2mm)  
**Offset:** 2mm  
**Colors:** polished aluminum only (part no. 8402)  
**Price:** \$29.95/pr.

PHOTOS BY WALTER SIDAS



#### MONZA

**Width:** 1 in. (25.3mm)  
**Diameter:** 1.9 in. (48.2mm)  
**Offset:** 2mm  
**Colors:** polished aluminum only (part no. 8403)  
**Price:** \$29.95/pr.



#### HOCKENHEIM

**Width:** 1 in. (25.3mm)  
**Diameter:** 1.9 in. (48.2mm)  
**Offset:** 2mm  
**Colors:** polished aluminum only (part no. 8404)  
**Price:** \$29.95/pr.

### HOBBY ETC.

Known for its lineup of anodized accessories from GPM, Hobby Etc. also offers these touring car wheels under the Works For Competition brand.



#### CHROME SPOKE

**Width:** 0.96 in. (24.4mm)  
**Diameter:** 1.91 in. (48.6mm)  
**Offset:** 0.3mm  
**Colors:** black chrome (part no. W24162C), chrome (W2418C)  
**Price:** \$6/pr.



#### 5-SPOKE

**Width:** 0.93 in. (23.7mm)  
**Diameter:** 1.89 in. (48.1mm)  
**Offset:** 1.4mm  
**Colors:** white, yellow, black, gray (part no. W24050 + color)  
**Price:** \$8/set of 4





# GUIDE

## HOBBY-TECH

Most of Hobby-Tech's wheels are authentically licensed, 1/10-scale reproductions of American Racing Wheels—great if you're in search of scale realism. Chrome, silver, black and white are the finish options, and the bonding surface of the plated wheels has been stripped for easy tire mounting.



**BONDURANT**  
Width: 1.05 in. (26.8mm)  
Diameter: 1.88 in. (47.8mm)  
Offset: 2mm  
Colors: chrome only (part no. A0202)  
Price: \$7/pr.



**PINZETTI**  
Width: 1 in. (25.6mm)  
Diameter: 1.88 in. (47.8mm)  
Offset: 1mm  
Colors: silver, chrome, black, white (part no. B050 + color)  
Price: \$7/pr. plated, \$5/pr. colored



**SPEEDSTER**  
Width: 1.01 in. (25.6mm)  
Diameter: 1.87 in. (47.5mm)  
Offset: 2mm  
Colors: silver, chrome, black, white (part no. B070 + color)  
Price: \$7/pr. plated, \$5/pr. colored



**SPAGO**  
Width: 1.05 in. (26.7mm)  
Diameter: 1.88 in. (47.8mm)  
Offset: 2mm  
Colors: chrome only (part no. A0203)  
Price: \$7/pr.



**NITROUS**  
Width: 1 in. (25.6mm)  
Diameter: 1.89 in. (48mm)  
Offset: 2mm  
Colors: silver, chrome, black, white (part no. B030 + color)  
Price: \$7/pr. plated, \$5/pr. colored



**NITRO**  
Width: 1 in. (25.5mm)  
Diameter: 1.87 in. (47.6mm)  
Offset: 2mm  
Colors: silver, chrome, black, white (part no. B040 + color)  
Price: \$7/pr. plated, \$5/pr. colored



**PYTHON**  
Width: 1 in. (25.6mm)  
Diameter: 1.87 in. (47.6mm)  
Offset: 1mm  
Colors: silver, chrome, black, white (part no. B060 + color)  
Price: \$7/pr. plated, \$5/pr. colored



**TORO THRUST D**  
Width: 1.05 in. (26.8mm)  
Diameter: 1.05 in. (26.8mm)  
Offset: 2mm  
Colors: silver/gray only (part no. A020)  
Price: \$7/pr.



**TORO THRUST II**  
Width: 1.04 in. (26.4mm)  
Diameter: 1.87 in. (47.7mm)  
Offset: 2mm  
Colors: chrome only (part no. A0206)  
Price: \$7/pr.



**TWISTED TURNER**  
Width: 1 in. (25.5mm)  
Diameter: 1.87 in. (47.6mm)  
Offset: 2.5mm  
Colors: silver, chrome, black, white (part no. B080 + color)  
Price: \$7/pr. plated, \$5/pr. colored



**TYPE A**  
Width: 1 in. (25.4mm)  
Diameter: 1.88 in. (47.7mm)  
Offset: 2mm  
Colors: silver, chrome, black, white (part no. B010 + color)  
Price: \$3.50/pr. plated, \$1.50/pr. colored



**AR-767**  
Width: 1.052 in. (26.8mm)  
Diameter: 1.88 in. (47.7mm)  
Offset: 2mm  
Colors: black only (part no. A0204)  
Price: \$7/pr.



**200S**  
Width: 1.01 in. (25.5mm)  
Diameter: 1.89 in. (48.1mm)  
Offset: 2mm  
Colors: silver, chrome, black, white (part no. B020 + color)  
Price: \$7/pr. plated, \$5/pr. colored



## HPI

Hobby Products Intl. backs up its touring-car line with a wide array of rims. Many styles are patterned after popular full-scale designs, and molded-in colors as well as plated finishes are offered.



### TYPE R5

**Width:** 0.95 in. (24mm)  
**Diameter:** 1.92 in. (48.9mm)  
**Offset:** 1mm  
**Colors:** white (part no. 3735), black (3736), chrome (3737)  
**Price:** \$6/pr. colored, \$9.50/pr. plated



### STOCK CAR

**Width:** 1.02 in. (25.9mm)  
**Diameter:** 1.92 in. (48.9mm)  
**Offset:** 1mm  
**Colors:** black only (part no. 3741)  
**Price:** \$6/pr.



### MESH

**Width:** 1 in. (25.5mm)  
**Diameter:** 1.90 in. (48.3mm)  
**Offset:** 2.3mm  
**Colors:** white (part nos. 3710/3715, 3mm offset), black (3711/3716), gray (3713/3718), chrome (3712/3717)  
**Price:** \$6/pr. colored, \$9.50/pr. plated



### 3-SPOKE

**Width:** 1 in. (25.5mm)  
**Diameter:** 1.88 in. (47.8mm)  
**Offset:** 0  
**Colors:** white (part no. 3600), black (3601), chrome (3602)  
**Price:** \$6/pr. colored, \$8.50/pr. plated



### 5-SPOKE

**Width:** 1.01 in. (25.6mm)  
**Diameter:** 1.88 in. (47.9mm)  
**Offset:** 0  
**Colors:** white (part no. 3610), black (3611), chrome (3612)  
**Price:** \$6/pr. colored, \$8.50/pr. plated



### 6-SPOKE

**Width:** 1.01 in. (25.6mm)  
**Diameter:** 1.92 in. (48.7mm)  
**Offset:** 0  
**Colors:** white (part no. 3620), black (3621), chrome (3622)  
**Price:** \$6/pr. colored, \$8.50/pr. plated



### 7-SPOKE

**Width:** 1.02 in. (26mm)  
**Diameter:** 1.89 in. (48mm)  
**Offset:** 0  
**Colors:** white (part no. 3556), black (3557), chrome (3558)  
**Price:** \$6/pr. colored, \$8.50/pr. plated



### SUPERSTAR

**Width:** 1.01 in. (25.8mm)  
**Diameter:** 1.9 in. (48.7mm)  
**Offset:** 1.4mm  
**Colors:** white (part nos. 3695/3690, 3mm offset), black (3696/3691, 3mm), chrome (3697/3692, 3mm)  
**Price:** \$6/pr. colored, \$9/pr. plated

## LOSI

Team Losi wheels feature a 10mm hex that is unique to the Street Weapon, so these hoops won't fit any other cars. But they will fit the new Triple-XS (see our "First Look" at it, elsewhere in this issue), which will also accept the standard 12mm hex wheels featured in this guide.



### 7-SPOKE

**Width:** 0.95 in. (24.3mm)  
**Diameter:** 1.95 in. (49.6mm)  
**Offset:** -3mm  
**Colors:** white (part no. A-7805)  
**Price:** \$6/pr.



### SPLIT SPOKE EXTRA OFFSET

**Width:** 1.01 in. (25.8mm)  
**Diameter:** 1.87 in. (47.5mm)  
**Offset:** -3.5mm  
**Colors:** white (part no. A-7803)  
**Price:** \$6/pr.



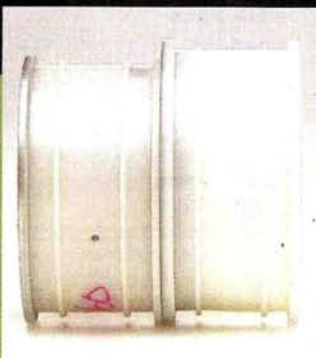
### 5-SPOKE

**Width:** 1 in. (25.6mm)  
**Diameter:** 1.86 in. (47.2mm)  
**Offset:** -5mm  
**Colors:** white (part no. A-7801), yellow (A-7802)  
**Price:** \$6/pr.

## FIT LIST

Serpent and Corally tourers use large hubs from Serpent's 1/10 on-road nitro cars. As a result, wheels with an inside diameter of 46mm or more are required for these cars. The following wheels fit the bill:

- Hobby-Tech "A"
- HPI Stock Car Wheel
- OFNA 12-spoke Narrow, Lexan Dish and Y-Spoke
- All Pro-Line wheels except Velocity
- Traxxas 4-TEC Wheel
- TRC Aero



## WHAT'S UP WITH INCH-UP?

Yokomo popularized the "inch-up" concept, which is simply a slightly oversize outside diameter (2 inches instead of 1.9). Because the rim is slightly larger, tires fit more snugly, and the sidewall becomes lower when the tire is mounted. This places the tread under tension, so it squirms less over the rim and insert, and the lower sidewall deflects less in the turns for more pre-

cise handling. Inch-up rims help some tires fit better, but they can make life difficult when you mount low-profile belted tires with firm inserts. They will fit, and the combination results in a very solid wheel, but you will need to give yourself extra time to mount the tightly fitting tires properly.

The rim on the left is "standard" size, or 48mm in diameter between the flanges. The Traxxas wheel on the right is an "inch-up" style and is visibly larger at 50.7mm.



## OFNA

With an eye toward value, most of OFNA's wheels are sold in bargain-priced 8-packs in many styles and colors, including unique translucent hues. OFNA also offers rims without flanges for use with foam tires.



### 12-SPOKE NARROW

Width: 0.80 in. (20.6mm)  
Diameter: 1.9 in. (48.2mm)  
Offset: 0  
Colors: white, red, yellow (part no. 87914 + color)  
Price: \$8.95/8-pack



### LEXAN DISH CLEAR

Width: 0.96 in. (24.4mm)  
Diameter: 1.92 in. (48.9mm)  
Offset: 0  
Colors: blue (part no. 87624), purple (87625)  
Price: \$8.95/8-pack



### LEXAN FOAM DISH

Width: 1.01 in. (25.8mm)  
Diameter: 1.87 in. (47.7mm)  
Offset: 0  
Colors: white (part no. 87701), black (87702), yellow (87703), clear (87704)  
Price: \$8.95/8-pack



### HYPER

Width: 1.02 in. (26mm)  
Diameter: 1.92 in. (48.8mm)  
Offset: 3mm  
Colors: grey (part no. 8710)  
Price: \$8.95/4-pack



### SPLIT SPOKE

Width: 0.95 in. (24.3mm)  
Diameter: 1.92 in. (48.8mm)  
Offset: 0.3mm  
Colors: white (part no. 87613), black (87614), yellow (87615)  
Price: \$8.95/8-pack



### Y-SPOKE

Width: 1.03 in. (26.2mm)  
Diameter: 1.93 in. (49mm)  
Offset: 0  
Colors: yellow (part no. 87612), white (87610), black (87611)  
Price: \$8.95/8-pack



### STAR OFFSET

Width: 1.03 in. (26.1mm)  
Diameter: 1.93 in. (49mm)  
Offset: 4mm  
Colors: white (part no. 87640), black (87641), yellow (87642)  
Price: \$8.95/8-pack



### STAR SPOKE

Width: 0.81 in. (20.6mm)  
Diameter: 1.9 in. (48.2mm)  
Offset: -0.3mm  
Colors: white (part no. 85801), black (85803), chrome matte (85807), chrome shiny (85805), gold (85813), yellow (85809)  
Price: \$8.95/8-pack

## RC1



RC1 wheels are made from a plastic/carbon-graphite composite for a very stiff rim that's resistant to flexing. The graphite's extra stiffness is very apparent. Consider these rims to be particularly useful on high-traction surfaces.

### RACING 6-SPOKE CARBON GRAPHITE

Width: 0.99 in. (25.2mm)  
Diameter: 1.9 in. (48.4mm)  
Offset: Zero  
Colors: (24mm/25mm/26mm): carbon graphite only (part nos. CG001/CG002/CG003)  
Price: \$8.99 (24mm), \$9.99 (25mm), \$10.99 (26mm)

## PRO-LINE

Pro-Line is justly famous for bodies and tires, but it also offers a full lineup of rims to go with them. Pro-Line's rims are available to fit 24- and 26mm tires, and are offered in silver, chrome and dyeable white.



### VELOCITY

Width: 1 in. (25.4mm)  
Diameter: 1.88 in. (47.9mm)  
Offset: 0.7mm  
Colors: white only (part no. 2649-04, 26mm/2650-04, 24mm)  
Price: \$5.95/pr.



### WARLOCK

Width: 0.99 in. (25.3mm)  
Diameter: 0.98 in. (25mm)  
Offset: 2.5mm  
Colors: chrome (part no. 2618-01), white (2618-04)  
Price: \$5.95/pr, \$8.95 plated



### TYPHOON

Width: 1 in. (25.4mm)  
Diameter: 1.89 in. (48.1mm)  
Offset: 2.5mm  
Colors: chrome, white, black, silver (part no. 2620 + color)  
Price: \$5.95/pr, \$8.95 plated



### WABASH

Width: 0.98 in. (25mm)  
Diameter: 1.88 in. (47.8mm)  
Offset: 1mm  
Colors: (26mm/24mm) chrome (part no. 2647-01/2648-01), white (2647-04/2648-04), silver (2647-05/2648-05)  
Price: \$5.95/pr, \$8.95 plated



### AXIS

Width: 0.95 in. (24.1mm)  
Diameter: 1.88 in. (47.9mm)  
Offset: 1mm  
Colors: (26mm/24mm): chrome (part no. 2643-01/2644-01), white (2643-04/2644-04), silver (2643-05/2644-05)  
Price: \$5.95/pr, \$8.95 plated



### GUMBY

Width: 1 in. (25.4mm)  
Diameter: 1.88 in. (47.9mm)  
Offset: 0.8mm  
Colors: (26mm/24mm): chrome (part no. 2645-01/2646-01), white (2645-04/2646-04), silver (2645-05/2646-05)  
Price: \$5.95/pr, \$8.95 plated





## RPM

RPM was one of the first manufacturers to produce a line of dress-up touring-car wheels and currently offers some of the most original designs. Color options include purple, neon yellow and dyeable white, plus plated finishes with prestripped bonding areas so the rims are ready for glue.



### 8-BALL

**Width:** 1.02 in. (26mm)  
**Diameter:** 1.88 in. (47.8mm)  
**Offset:** 0  
**Colors:** chrome (part no. 80783), gold (80784), white (80781)  
**Price:** \$8.95/pr. (chrome), \$9.95/pr. (gold), \$6.50/pr. (white)



### AVENGER

**Width:** 1.04 in. (26.5mm)  
**Diameter:** 1.89 in. (48mm)  
**Offset:** 1.5mm  
**Colors:** aluminum-finish (part no. 80606/80706 narrow), white (80701/80601 narrow), neon yellow (80607), purple (80608)  
**Price:** \$8.95/pr. plated, \$6.50/pr. colored



### CHICANE

**Width:** 1.04 in. (26.5mm)  
**Diameter:** 1.88 in. (47.7mm)  
**Offset:** 1mm  
**Colors:** aluminum (part no. 80806/80906 narrow), white (80801/80901 narrow)  
**Price:** \$8.95/pr. plated, \$6.50/pr. colored



### ILLUSION

**Width:** 1.04 in. (26.4mm)  
**Diameter:** 1.88 in. (47.7mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80873/8098 narrow), white (80981/80781 narrow)  
**Price:** \$8.95/pr. plated, \$6.50/pr. colored



### INVADER

**Width:** 1.04 in. (26.4mm)  
**Diameter:** 1.88 in. (47.9mm)  
**Offset:** 0.8mm  
**Colors:** chrome (part no. 80843/80943 narrow), gold (80844/80944 narrow), white (80841/80941 narrow)  
**Price:** \$8.95/pr. plated, \$6.50/pr. colored



### PSYCLONE

**Width:** 1.03 in. (26.1mm)  
**Diameter:** 1.88 in. (47.8mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80733/80833 narrow), gold (80734/80834 narrow), white (80731/80831 narrow)  
**Price:** \$8.95/pr. (chrome), \$9.95/pr. (gold), \$6.50/pr. (colored)



### SPARTAN

**Width:** 1.03 in. (26.2mm)  
**Diameter:** 1.96 in. (49.9mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80763/80863 narrow), gold (80764/80864), white (80761/80861)  
**Price:** \$8.95/pr. (chrome), \$9.95/pr. (gold), \$6.50/pr. (colored)



### STRIKER

**Width:** 1.03 in. (26.1mm)  
**Diameter:** 1.87 in. (47.6mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80763/81003 narrow), white (80991/81001)  
**Price:** \$8.95/pr. (chrome), \$6.50/pr. (colored)



### SUNBURST

**Width:** 1.03 in. (26.2mm)  
**Diameter:** 1.88 in. (47.8mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80793/80893 narrow), gold (80794/80894), white (80791/80891)  
**Price:** \$8.95/pr. (chrome), \$6.50/pr. (colored), \$9.95/pr. (gold)



### VORTEX

**Width:** 1.03 in. (26.2mm)  
**Diameter:** 1.88 in. (47.7mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80953/80853), white (80951/80851), gold (80954/80854)  
**Price:** \$8.95/pr. (chrome), \$6.50/pr. (colored), \$9.95/pr. (gold)

## UNDERSTANDING OFFSET



This cutaway wheel illustrates the position of the hub face relative to the width of the rim; note that a line drawn through the rim and flush with the hub face shows the rim to be centered (in other words, not offset) relative to the hub face.

The term "offset" describes the position of the rim's tire-mounting area relative to the face of the hub carrier. The cutaway illustration shows a 0-offset rim. As the dotted line shows, the face of the hub carrier is flush with the centerline of the rim's width; it is not offset to either side of the hub face. Some rims are molded with the hub socket behind the centerline; this pushes the tire out in relation to the hub carrier and widens the car. The distance from the hub face to the rim's centerline is its offset, and is listed as a positive number if the offset widens the car, and negative if the offset narrows the car. Keep in mind that your car will be widened by twice the rim offset; for example, if you run 2mm offset rims, your car will actually be 4mm wider because you installed two rims.

So why use offset rims? Cosmetically, you might simply wish to fill up your sedan's wheel wells for a more muscular look. Performance-wise, more offset generally makes for more steering and improved corner traction. A wider car is harder to flip, and because the tire's contact patch is farther from the suspension arm's fulcrum point (the hinge pin), it has more leverage on the arm; that makes the suspension more active for more grip. If you want to experiment with rim offset, you can simply put spacers between the rim and the hex hub (RPM even includes spacers with its wheels). Just be sure that the stub axles' threads are still exposed enough to grab the nylon in the wheel's locknut; otherwise, you'll soon be measuring the offset between the wheel and your car in feet, not millimeters!



### TURBO

**Width:** 1.03 in. (26.2mm)  
**Diameter:** 1.87 in. (47.7mm)  
**Offset:** 1mm  
**Colors:** chrome (part no. 80963/80973 narrow), white (80961/80971)  
**Price:** \$8.95/pr. (chrome), \$6.50/pr. (white)



## TRAXXAS

**NITRO 4-TEC WHEEL**

**Width:** 1.01 in. (25.8mm)  
**Diameter:** 1.99 in. (50.7mm)  
**Offset:** 2.5mm  
**Colors:** silver (part no. 4872)  
**Price:** \$8

We wanted to concentrate on aftermarket rims for this guide, but Traxxas' rims are too pretty to pass up. And since they're "inch-up" style, they perform as well as they look—and they look great. The rims' bonding area is stripped for instant gluing.

## YOKOMO

**6-SPOKE**

**Width:** 1.02 in. (25.9mm)  
**Diameter:** 1.89 in. (48mm)  
**Offset:** 0  
**Colors:** white only (part no. TW-0413)  
**Price:** \$4.50/pr.

**10-SPOKE**

**Width:** 0.94 in. (24mm)  
**Diameter:** 1.88 in. (47.9mm)  
**Offset:** 4.9mm  
**Colors:** white only (part no. ZR-0492)  
**Price:** \$3.50/pr.

**8-SPOKE MESH**

**Width:** 1.01 in. (25.8mm)  
**Diameter:** 1.88 in. (47.8mm)  
**Offset:** 0  
**Colors:** white only (part no. TW-0113)  
**Price:** \$3.50/pr.

**12-SPOKE**

**Width:** 1.89 in. (25.9mm)  
**Diameter:** 1.89 in. (47.9mm)  
**Offset:** 0  
**Colors:** white only (part no. TW-0213)  
**Price:** \$4.50/pr.

Yokomo wheels are offered in standard 1.9-inch diameter as well as the "inch-up" style originated by Yokomo. The larger inch-up models (not pictured) feature a 5-spoke design and are available in 21-, 24- and 26mm widths and have 2-inch (50mm) diameters.

## TRC

TRC's Aero wheels feature a split-spoke design and include removable Lexan covers for cleaner aerodynamics (hence the name). The clear covers can be painted to match your car or left clear to show off the wheel underneath.

**AERO**

**Width:** 1.02 in. (26mm)  
**Diameter:** 1.93 in. (49mm)  
**Offset:** 1.2mm  
**Colors:** white (part no. TM1006)  
**Price:** \$5.99/pr.

## SOURCE GUIDE

**HG**

6 Tower Heights, Albany, NY 12211; (518) 782-9255; [www.1hg.com](http://www.1hg.com).

**HOBBY ETC.**

90 West Pearl St., Nashua, NH 03060; (603) 595-8549; [www.hobbyetc.com](http://www.hobbyetc.com).

**HOBBY-TECH**

1139 Coiner Ct., City of Industry, CA 91748; (888) 722-7101; [www.hobby-tech.com](http://www.hobby-tech.com).

**HPI RACING**

15321 Barranca Pky., Irvine, CA 92618; (949) 753-1099; [www.hpiracing.com](http://www.hpiracing.com).

**LOSI**

Distributed by Horizon Hobby Inc., 4105 Fieldstone Rd., Champaign, IL 61822; (217) 355-9511; [www.horizonhobby.com](http://www.horizonhobby.com).

**OFNA RACING**

22692 Granite Way, Ste. B, Laguna Hills, CA 92653; (949) 586-2910; [www.ofna.com](http://www.ofna.com).

**PRO-LINE**

P.O. Box 456, Beaumont, CA 92223; (909) 849-9781; [www.pro-lineracing.com](http://www.pro-lineracing.com).

**RC1 RACING**

51 Ravine Ct., Woodbridge, Ontario, Canada L4L 7C1; (416) 565-3230.

**RPM R/C PRODUCTS**

14978 Sierra Bonita Ln., Chino, CA 91710; (909) 393-0366; [www.rpmrcproducts.com](http://www.rpmrcproducts.com).

**TRAXXAS CORP.**

12150 Shiloh Rd., #120, Dallas, TX 75228; (972) 613-3300; [www.traxxas.com](http://www.traxxas.com).

**TRC/TRINITY**

36 Meridian Rd., Edison, NJ 08820; (732) 635-1600; [www.teamtrinity.com](http://www.teamtrinity.com).

**YOKOMO USA**

Airport Business Center, 17951 Skypark Cir., Ste. K, Irvine, CA 92614; (949) 252-8663; [www.yokomousa.com](http://www.yokomousa.com).

GET IT ALL...

## THE HOTTEST RC CAR INFO

Check out **RCCarAction.com** every day for good stuff to tide you over until your next action-packed copy of *RC Car Action* magazine arrives in the mail!

- Real-time news
- Hot products
- Readers' rides
- Quick tips
- Live chats
- Classified ads

**RCCarAction.com**

RADIO CONTROL  
**car action**



# Install a 2-speed tranny

## 2-speeds in 12 steps

by Greg Vogel



**N**itro touring cars are always ripe for modification, either with colorful, anodized, “style” pieces or with genuine performance-increasing parts. One of the most significant modifications you can make to a nitro machine is to replace your single-speed transmission with a 2-speed shifting unit. Even if your car is already fast, a 2-speed will get it out of the hole more quickly and up to a higher top speed—with the bonus that you’ll hear the car shift, and that’s something that has to be experienced to truly be appreciated.

As exciting as the thought of a 2-speed is to many enthusiasts, to some of you, the thought of working on a shifting transmission might seem daunting. Believe me; there’s nothing difficult about it! To show a typical modification, we decided to install an OFNA centrifugal-clutch-type 2-speed transmission in an RTR Nitro RS4; you should be able to follow these steps for just about any nitro car.

### YOU’LL NEED

You may need different tools or materials to install a 2-speed on other vehicles, but most require:

- Long-nose pliers
- Phillips-head screwdriver
- Small, flat-head screwdriver
- Thread-locking compound

### ENGINE PREP

#### Step 1. Improve engine access

Start by removing the fuel lines, the linkage to the carburetor, and the rear brace that spans over the top of the engine; this will make it easier to take the engine out of the car.



#### Step 2. Remove the engine

Almost all engines are held in with four



screws on the bottom of the chassis. Using a Phillips-head screwdriver, remove these screws; the engine should now be easy to remove. If your engine is

equipped with a tuned pipe, you will also have to remove the pipe mount.

#### Step 3. Remove the clutch bell

The clutch bell is held in place with an E-clip or a screw; this RS4 uses a screw. Hold the flywheel to lock the engine, and remove the screw. If your engine’s clutch bell is held with an E-clip, pry the clip off with a small, flat-head screwdriver. Then pull the clutch bell off the pilot shaft and remove the needle bearing or clutch-bell bearing (if it is still on the shaft).



#### Step 4. Install bearings in the new clutch bell

Install the bearings that came with the 2-speed kit in the clutch bell. Never force a bearing into place with a screwdriver because you run the risk of damaging it. If you need to use force to push the bearing in, use a box wrench or a nut driver; these tools sit against the bearing race and are less likely to do any damage. Slip a washer (included with the 2-speed) and then the clutch bell over the pilot shaft. Put the retaining washer (and a little thread-locking compound) on the clutch-bell retaining screw, thread the screw into the



end of the pilot shaft and tighten it.





**Step 1. Remove the top shaft**

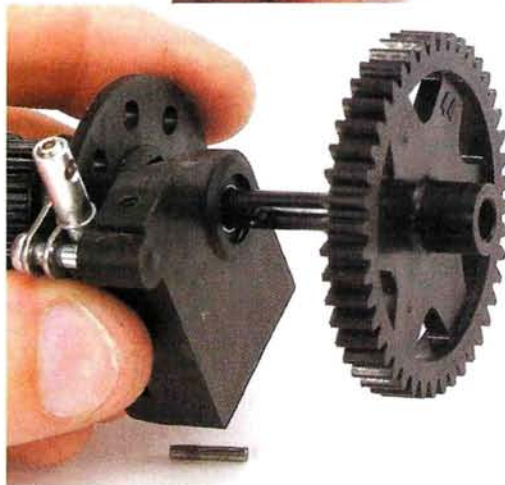
To remove the stock main shaft, first take out the supporting bulkheads. Unscrew the four screws on the bottom of the chassis and the one that keys the side bulkhead to the rear



bulkhead. Remove the shaft bulkheads (this requires a little manipulation), and slide the rest of the assembly from under the belt and remove it from the car.

**Step 2. Disassemble the stock shaft**

You have to use some of the stock parts—for example, the pulleys and pins—to install the new 2-speed shaft. First, pry the E-clip off the shaft with a small screwdriver. It's a good idea to hold the shaft and E-clip in a large plastic bag so the clip doesn't fly off into never-never land. Now slide the pulley off, and remove the pin, the main gear and its pin, and the bulkhead. Do the same for the pulley on the other end of the shaft.

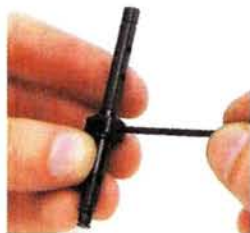


## NEW 2-SPEED ASSEMBLY

**Step 1. Install the 2-speed clutch-shoe guide**

Most aftermarket 2-speed trannys come with installation instructions. The OFNA kit

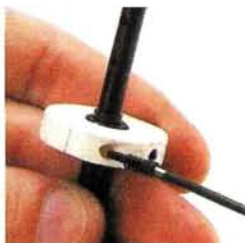
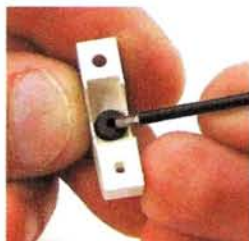
includes an illustrated instruction sheet. Start by bolting in the shoe guide for the centrifugal clutch. Put Loctite on the setscrew, then



screw it into the guide and down onto the flat spot on the main shaft.

**Step 2. Assemble the clutch shoes**

Thread a setscrew through the center hole in each shoe, making sure that the screw head is just below the top of the shoe. Next, slide the black spacers into the recess inside the shoe, and place the each shoe over the guide. The spacers inside the clutch shoes

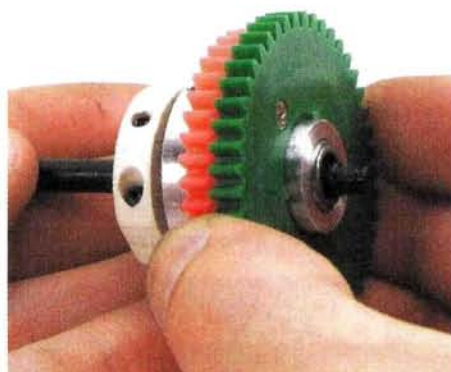


should line up over the flat spots on the guide. You'll notice a large hole on the end of each shoe. When you install the shoes on the

guide, be sure that the large holes are on opposite sides. Next, slide a spring and then a screw into each of the large holes, and tighten the screws until their heads are just below the surface of the shoes.

**Step 3. Install the gears**

Use the supplied flat-head screws to anchor the gears to their respective aluminum housings. Slide the assembly onto the top shaft so that the second gear housing covers the clutch shoes.

**Tips and tricks**

Test-fit the clutch shoes on the clutch guide. Ours were a little tight, so we used a hobby knife to remove a little material from the inside of the shoes. Remove only enough to allow the shoe to slide on without your having to force it.

Before tightening the clutch-bell retaining screw, check the clutch bell for clearance. It shouldn't rub on the flywheel; use spacer washers on the pilot shaft behind the clutch-bell bearing to ensure that it doesn't.

To prevent the screws from vibrating loose, remember to use Loctite on all screw-into-metal applications.

On cars that have adjustable engine mounts, use a piece of paper to help set the gear mesh. Slide the paper between the gears and tighten the engine screws; when the paper is removed, the mesh will be perfect.

If you're worried that you won't remember which screws go where, place them in a plastic bag and label it with the name of the part you removed them from.

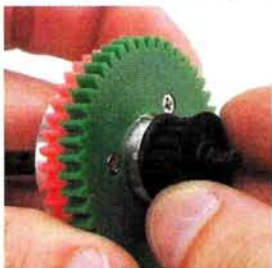
While you're taking the stock main shaft apart and disassembling everything, it's a good idea to upgrade the brake disc. The stock plastic brake can melt if improperly adjusted; now that your tranny is faster, you'll put more stress on your brake disc when you slow down and it will wear out.



## REASSEMBLY

**Step 1. Put it back where you found it**

You've completed the difficult steps. Now you have to put everything back together, reversing the order of disassembly. Slide the pins, pulleys and bulkheads back onto the shaft and into their original positions. To get the E-clips back into place, slide them into the slot and force them to "clip in" with a pair of long-nose pliers. You no longer need the roll pin that was used to key the spur gear to the top shaft. I suggest that you hold on to the pin, spur gear, clutch bell and needle bearing in case you need them in the future.

**Step 2. Install the drive assembly**

Slip the belts over the pulleys, slide the rear main shaft bulkhead into place and bolt the bulkheads back onto the chassis. Don't forget the retaining screw that holds the main shaft bulkhead on the rear bulkhead.

**Adjusting the tranny**

Setting the tranny takes time. The chance of setting it perfectly, off the bat, is slim. As a starting point, tighten the setscrews so the clutch engages quickly. This allows the shoes to seat. If you just fool around in a parking lot, you'll want the car to shift into second gear within 20 to 30 feet.

Adjusting the clutch for the track is a different story; it all depends on the track. If it has a short straight, you'll want the second speed to kick in about one third of the way around it. With longer straights, you might want second gear to kick in after the first quarter. The last thing you want is the second speed to kick in at the end of the track. This puts a strain on the engine, won't improve lap times and could cause you to overshoot the turn.

**Step 3. Bolt the engine into place**

Apply thread-locking compound to the screws before you screw them into the engine mount. The RTR Nitro RS4 has engine-mounting holes that line the gears up perfectly.

Swapping from a single-speed to a 2-speed is easy. Like any other upgrade modification, you basically remove an old part and replace it with a new one. That second gear will make your car go much faster, and we all know faster equals fun.

**SOURCE GUIDE****HPI RACING**

15321 Barranca Pky., Irvine, CA  
92618; (949) 753-1099; fax (949)  
753-1098; www.hpiracing.com.

**OFNA RACING**

22692 Granite Way, Ste. B,  
Laguna Hills, CA 92653; (949)  
586-2910; www.ofna.com.

**AA Model Supply**  
WWW.AAAModel.com



5237 HWY 126  
BLOUNTVILLE TN 37617  
Phone: (423) 323-1513  
Fax: (423) 323-1595  
E-mail DRDALE@USIT.NET

**Dillon Racing**  
WWW.DillonRacing.com

ASSOCIATED  
BOLINK  
BUD'S  
BME  
BSR RACING

COMPETITION ELEC.  
C&M MFG (COBRA)  
DILLON RACING  
FANTOM RACING  
HAMMOND GHUMAN

HYPERDRIVE  
KIMBROUGH  
LAD ENGINEERING  
PROLINE  
PROTOFORM

PROMATCH  
PTI  
RACETECH  
RACEWAY MFG  
THUNDER RACING

TRC  
TRINITY  
XS SPEED RACING  
AND MANY MORE!  
**NEW G-2K GAS OVAL**

CALL OR WRITE FOR CATALOG  
DEALER INQUIRES INVITED



HOME OF



Speed & Performance

**HOME OF ROAR & NORRCA NATIONAL CHAMPION RICHIE KING**

**Hot NEW ITEM**

**GREEN RUBBER SEALED BEARINGS**

**FOR GAS CARS AND TRUCKS**

**LONGER LIFE • NO MAINTENANCE  
NO FURTHER LUBRICATION**

**GOGO  
BOCA**

**CALL TOLL FREE: 800-332-3256  
FAX TOLL FREE: 800-409-9191**

**WE SHIP WORLDWIDE FAST AND ECONOMICALLY**

**EASY ORDERING** www.bocabearings.com

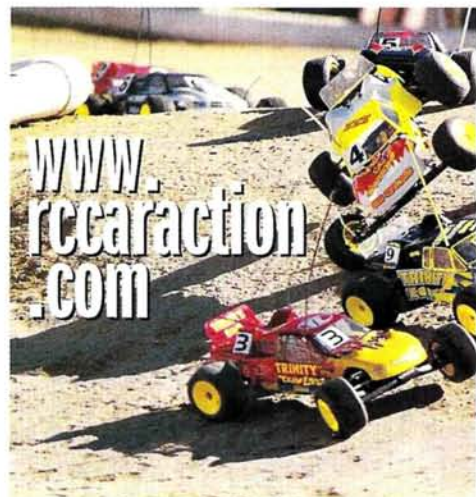
E-MAIL US AT:  
bearing@gate.net

**BOCA BEARING**



1500 S.W. 30th Ave., Boynton Beach, FL 33426, U.S.A.

MINIATURE BEARINGS FOR HOBBY & INDUSTRY









AFTERMARKET EXOTICA

# ULTIMATE

## Associated TC3

BY DEREK BUONO



Every other month, *Radio Control Car Action* will feature a new "ultimate"—an RC vehicle built from the ground up as a custom dream machine. Many of the parts we use might be designed for ultimate performance, but what we're really after is ultimate cool factor. For this first installment, we turn our attention to the Associated TC3—certainly one of the most popular touring cars in the world. Its overwhelming popularity with racers and sport drivers alike has brought tremendous aftermarket support, and that makes it an ideal candidate for the "ultimate" treatment.

The Ultimate TC3 deserves the ultimate body; HPI delivers with the Nissan Silvia. It not only looks good but should also handle decently on the track.



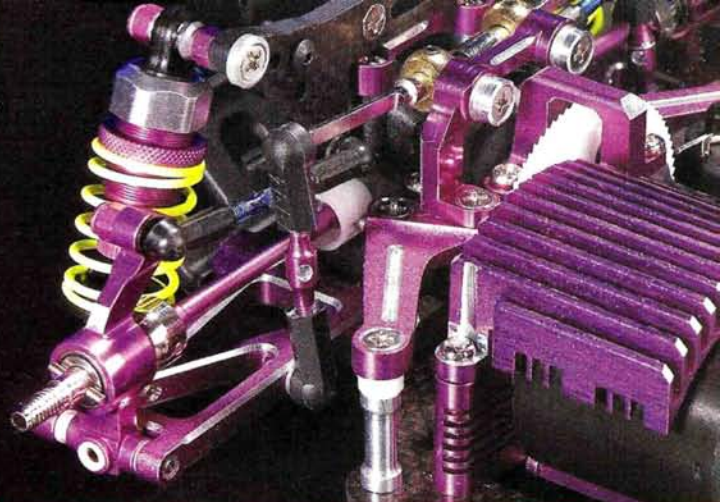
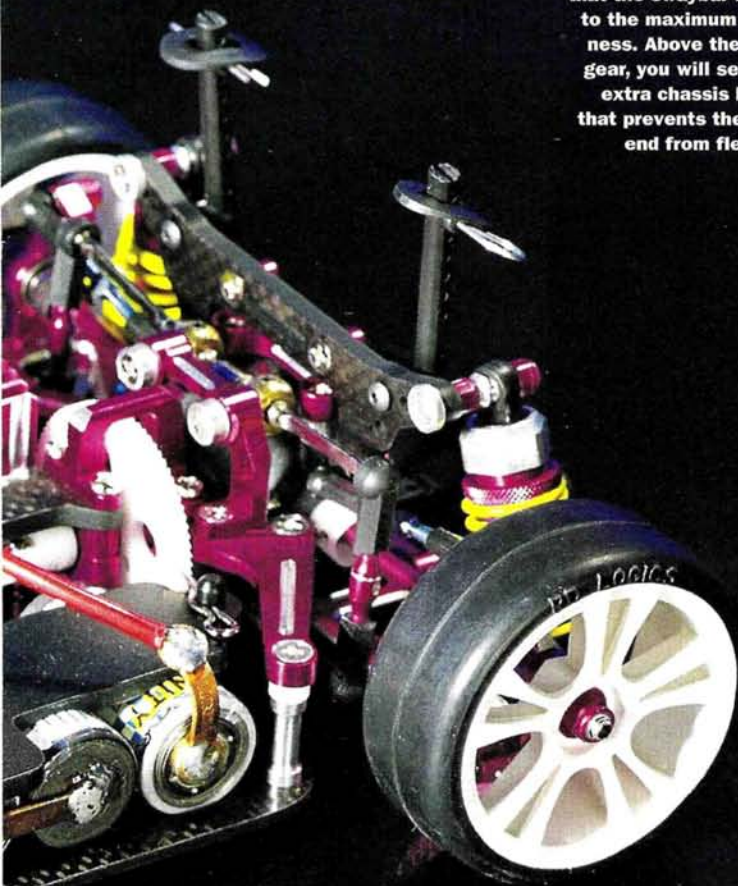
## ULTIMATE ELECTRONICS

- CS Rocket ESC—part no. G985, \$139.99.
- Hitec HS 9525MG steering servo—35925J, \$99.99.
- Trinity Stock Metal Hydride 6-cell pack—NT3106, \$134.99.
- Novak XXL FM receiver—2475F, \$69.99.
- Futaba 3PJFS transmitter—FUTJ31, \$389.99.
- Reedy Fury MW 10-triple motor—418, \$59.99.

The chassis is dramatically different from the stock molded tub. With seven slots in the chassis, the battery can be moved to adjust the weight bias or to inject some extra speed with 7 cells—not race-legal, but fun.



Another unique feature is the rear torsion-style swaybar. To adjust the stiffness, simply rotate the bars. You can see that the swaybar is set to the maximum stiffness. Above the spur gear, you will see the extra chassis brace that prevents the rear end from flexing.



#### ASSOCIATED

- Factory Team titanium turnbuckles—part no.1356, \$30.

#### HPI

- Nissan Silvia body set (190mm)—7341, \$24.

#### MEGATECH

- Delrin front 6x10 one-way bearing unit—MTC22103, \$27.95.
- Delrin ball-diff assembly—MTC22109, \$27.95.
- Graphite shock towers (F/R)—MTC22111/MTC22112, \$14.95.
- Graphite chassis and motor heat-sink set—MTC22113, \$119.95.
- Steel hinge-pin set—MTC22128, \$8.95.
- Steel/aluminum universals—MTC22135, \$15.95/pair.
- Steel/aluminum anti-roll bar set—MTC22136, \$17.95.
- Aluminum 8-32 locknuts (4)—MTC22138, \$7.95/set.
- Machined-aluminum parts:
  - Hex drive washers (4)—MTC22114, \$8.95/set.
  - Spur-gear adapter—MTC22115, \$11.95.
  - Motor-mount cam plate—MTC22116, \$9.95.
  - Front hub carriers for bearings—MTC22118, \$14.95.
  - Knuckles arms (F/R)—MTC22119/MTC22120, \$14.95.
  - Main shaft with Delrin joint—MTC22121, \$14.95.
  - Heat-sink motor clamp—MTC22122, \$12.95.
  - Lower motor heat sink—MTC22123, \$9.95.
  - Steering rack with bearings—MTC22125, \$19.95.
  - Suspension arms (F/R)—MTC22126/MTC22127, \$16.95.
  - Chassis braces (F/R)—MTC22129/MTC22130, \$11.95.
  - Servo-post set—MTC22133, \$11.95.
  - Mount for stabilizing shaft—MTC22137, \$4.95.
  - Front suspension arm mounts (2 degree)—MTC22139, \$14.95.
  - Rear suspension arm mounts (1 degree)—MTC22139, \$14.95.

#### PRO-LINE

- Gumby wheels (26mm)—2645-04, \$6.50/pair.

#### RD LOGIC

- SR Series medium w/belt—\$14.75/pair.



Above: check out the cool beaded finish on the aluminum parts. The aluminum steering rack rides on ball bearings for extra precision. From this angle, you can see that you need to remove the shock tower to access the differentials. Right: here's something cool: the front hub carriers have ball bearings for the kingpins to pivot on. You won't find any binding or slop here! Peeking out from the tranny cases are the Delrin outdrives of the lightweight one-way.





# ONE AWESOME HELICOPTER



Model 100

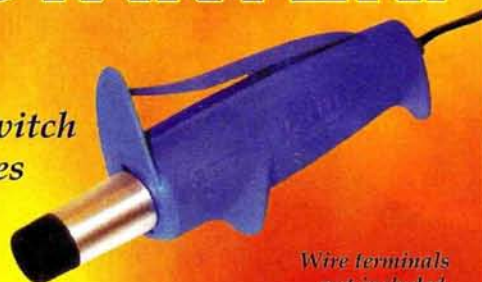
- Durable
- Economical
- Over 30 Patents
- Norvel Vmax-6 Engine

Starting at \$199 with Arlton Gyro

Patented and Patent Pending

## NEW! Micro-STARTER!

- High Speed  
(10,000 - 15,000 rpm)
- Heavy Duty 15 Amp Switch
- Starts All Small Engines  
(0.020 - 0.074 cu in)
- Comfortable Grip



Wire terminals  
not included.

Tired of cranking for hours on small engines with a big, slow starter? Try Lite Machines' new high speed micro starter. Starts small engines in a flash.

**\$34.95**

Retail

Patents Pending or Applied For

Call Lite Machines or See Your Local Dealer



(765) 463-0959 Phone

(765) 463-7004 Fax

[www.litemachines.com](http://www.litemachines.com)

Advanced Electroluminescent and I.E.D. Technology

**R/C LIGHTING**  
WWW.RENEON.COM  
1-800-334-7226 ph • 1-310-763-3220  
Varad Corporation • USA

## ULTIMATE ASSOCIATED TC3

### PERFORMANCE

With the extra heft of its aluminum suspension parts, the Ultimate TC3 weighed a full 3 ounces more than a stock Factory Team TC3, so I wasn't expecting any advantage in acceleration. Still, the Ultimate car didn't give up much to the stocker in a drag race; even though the suspension parts were weighty, the feather-light drive shaft and Delrin differentials were a match for the Factory Team's own lightweight parts and helped the Ultimate get out of the hole quickly. Handling was hard to compare, since the Ultimate and stock TC3s had different shocks with different damping and spring-rate settings. For a fair comparison of handling, I put in a few laps with the Factory Team TC3 then swapped its shocks over to the Ultimate. I was surprised at how similar the cars felt; aluminum suspension parts are often described as being "too stiff" and are blamed for "chatter," but the Ultimate felt supple. Maybe it was the slight flexing of the graphite chassis that I was feeling. At any rate, the car worked well, but I probably wouldn't race with the aluminum suspension parts; in addition to adding weight, they will stay bent if tweaked in a crash. But for show, they're unbeatable, and unless you plan to smash your TC3 into immobile objects, they'll never bend. In all, the Ultimate TC3 performed better than I would expect of a car built for a cruising style of handling; that's a testimonial to the strength of the basic TC3 design. ■

### SOURCE GUIDE

#### ASSOCIATED ELECTRICS

3585 Cadillac Ave., Costa Mesa, CA 92626-1403; (714) 850-9342; [www.rc10.com](http://www.rc10.com); [www.teamassociated.com](http://www.teamassociated.com)

#### CS

Distributed by Schumacher USA, 6302 Benjamin Rd., Ste. 404, Tampa, FL 33634; (813) 889-9691; [www.racing-cars.com](http://www.racing-cars.com)

#### FUTABA

Distributed by Great Planes Model Distributors, P.O. Box 9021, Champaign, IL 61826-9021; (800) 682-8948

#### HITEC RCD INC.

12115 Paine St., Poway, CA 92064; (858) 748-6948; [www.hitecrd.com](http://www.hitecrd.com)

#### HPI RACING

15321 Barranca Pky., Irvine, CA 92618; (949) 753-1099; [www.hpiracing.com](http://www.hpiracing.com)

#### MEGATECH

8300 Tonnelle Ave., North Bergen, NJ 07047; (201) 662-2800; [www.megatechrc.com](http://www.megatechrc.com); [info@ahcmegatech.com](mailto:info@ahcmegatech.com)

#### NOVAK ELECTRONICS INC.

18910 Teller Ave., Irvine, CA 92612; (949) 833-8873; [www.teamnovak.com](http://www.teamnovak.com)

#### PRO-LINE

P.O. Box 456, Beaumont, CA 92223; (909) 849-9781; [www.pro-lineracing.com](http://www.pro-lineracing.com)

#### RDLOGICS

17360 Coling Rd. #355, Rowland Heights, CA 91748; [www.rdlogics.com](http://www.rdlogics.com)

#### REEDY MODIFIEDS/TEAM ASSOCIATED

3585 Cadillac Ave., Costa Mesa, CA 92626; (714) 850-9342; [www.teamassociated.com](http://www.teamassociated.com)

#### TRINITY PRODUCTS INC.

36 Meridian Rd., Edison, NJ 08820; (732) 635-1600; [www.teamtrinity.com](http://www.teamtrinity.com)



## Bringin' home the chrome

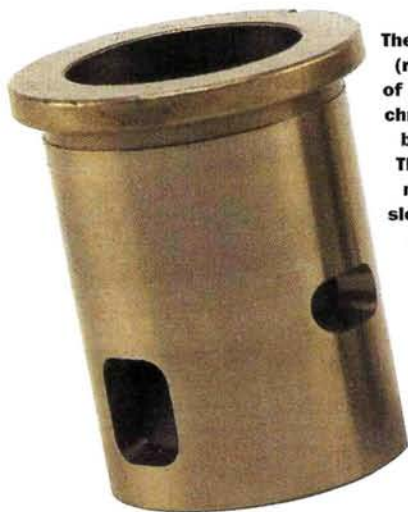
I get so many emails that state, "Yo, Chris; my engine is driving me up the wall. I don't understand. It used to run great; now it don't run so great. Know what I mean? What's up with that? I hate it!"

If you have an engine that used to run well but no longer does, the odds are way better than even that it has a worn out piston/sleeve set. Oh, the engine will still run (sort of), but very poorly. I told you guys about running it too lean! If your sick engine happens to be an O.S. .12 CV, LD or CZ-Z, I have a rebuild for you that will not only cost you less than 30 bucks, but it will also upgrade your nickel-plated cylinder engine to true chrome ABC (aluminum, brass, chrome) piston/sleeve technology at the same time!

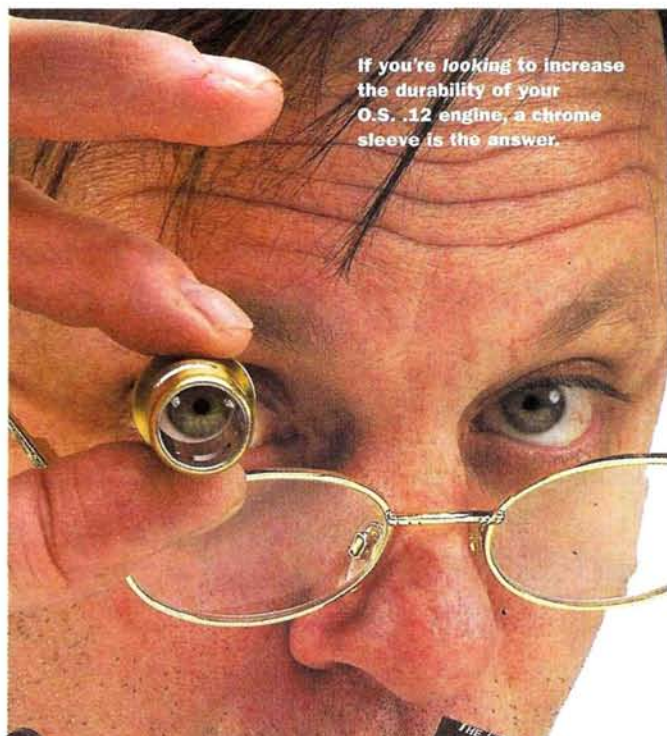
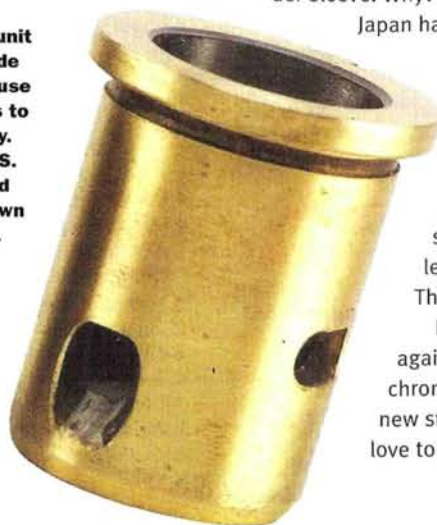
I love O.S. engines—always have. They run practically right out of the box, are finely machined and have smooth throttle characteristics. One thing I always wished O.S. engines had, however, was



This is a well used (more like burned out) O.S. CV with the new DuraTrax piston/sleeve set waiting to be installed.



The DuraTrax unit (right) is made of brass because chrome sticks to brass readily. The stock O.S. nickel-plated sleeve is shown on the left.



If you're looking to increase the durability of your O.S. .12 engine, a chrome sleeve is the answer.

DuraTrax's new Heavy Duty Piston/Sleeve assembly fits an O.S. .12 CV, LD and CZ-Z, has true chrome plating and costs less than half the price of an O.S. nickel-plated piston/sleeve set.

true chrome ABC piston/sleeve technology.

Except for the CV-R, all other .12-size and most other O.S. engines use a nickel-plated cylinder sleeve. Why? Because

Japan has exceedingly

stringent environmental laws about chroming that make this manufacturing process very expensive. The advantage of chrome is durability. It's a very hard metal—much harder than nickel—and it wears extremely well. If you wonder why the underlying sleeve is made of brass, it's only because brass lends itself very well to the chrome-plating process. The two metals stick to each other readily.

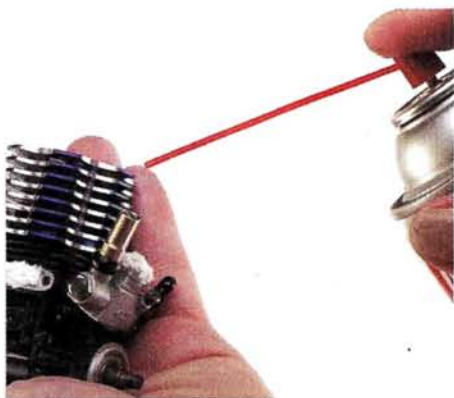
If you want your old O.S. engine to run like new again, read on. You'll be upgrading your engine to true chrome ABC technology—and at about half the price of a new stock O.S. nickel-plated piston/sleeve set. Man, I just love to pass on a good deal!





1

Before you do anything, stuff the exhaust port and carb intake with clean tissue and thoroughly clean off the outside of the engine with denatured alcohol or carb cleaner. Whatever you use, make sure it contains no muriatic acid, which will damage the aluminum.



Right and below left: remove the backplate and head. Below right: make sure you don't lose this thing (I've lost several in my hobby career); it's the head shim. Most of the time, you'll find it stuck to the top of the heat-sink head or the top of the

2



sleeve. Leaving it out will change the compression ratio, and the engine will not run properly.



The stock sleeve should slip out easily.

3



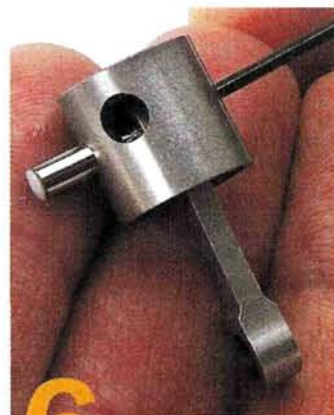
4

Before you do another thing, mark the rear-facing surface of the connecting rod with a permanent marker before you remove it. The rod needs to go back in the way it came out.



5

Place the crankshaft in the top-dead-center position, gently lift the lower end of the connecting rod off the crankpin, and remove the piston/rod assembly.



6

Mark the rear-facing white Teflon wristpin pad (just as you did with the connecting rod; it, too, must be replaced in the original position), and gently push the wristpin out of the piston.

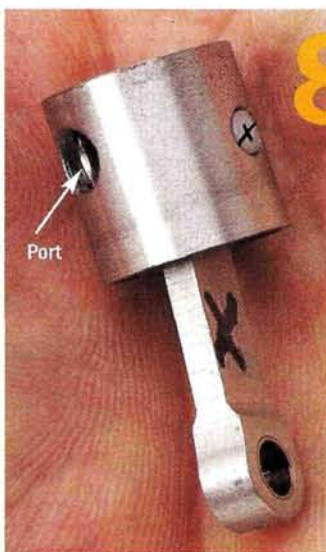


7

Coat the new piston and the new sleeve (both inside and out) with after-run oil.

8

When you reassemble the piston, rod and wristpin, be sure that the port in the piston's skirt is on the left when you view the connecting rod from the rear.



Again, put the crankshaft at top dead center in preparation for piston/rod and sleeve installation.



# PUMP UP your engine

This system incorporates the Perry pumps & carbs. Over the past 20 years over 50,000 of these systems have been used successfully in model airplanes worldwide.

Kit for .12 & .15 engines \$84.95 +S/H

Kit for .21 engines \$89.95 +S/H

TO FUEL TANK

Included with the kit: 1-Vp-30 pump, 1-carb, 1-AVM® intercooler, 1-pump clamp, 1-allen wrench, 1-pressure fitting, 1-check valve, 1-thick walled tubing.

**THE 1ST FUEL MANAGEMENT SYSTEM DESIGNED ESPECIALLY FOR MODEL CARS AND TRUCKS**

This system requires a 6-32 threaded hole be put into the crankcase of your engine and a pressure fitting installed. The pump is designed to operate on crankcase pulses.

## AVM intercooler manifold \$24.95 +S/H

The AVM Intercooler intake manifold is computer designed and CNC-machined. The manifold was developed to accelerate incoming air fuel mixture and reduce temperature. This net result is less frustration associated with "hot restarts".

During testing there was over a 100 degree difference between the intake manifold and head temperature.

*The AVM Intercooler manifold is also available for non-pump application. Installation is simply placing the manifold between your carb and the engine block.*

■ If you purchase the pump/carb system from Conley Precision, we will drill and tap your engine crankcase for just \$20.

**Conley**  
PRECISION ENGINES, INC.

Performance Products Division

Conley Precision Engines, Inc.  
825 Duane St. Glen Ellyn, IL 60317

1-630-858-3160

www.perrypumps.com

## PISTON POWER



9

Lining up the piston so it will go into the sleeve may take a few tries.

Twisting the sleeve back and forth can facilitate piston insertion.

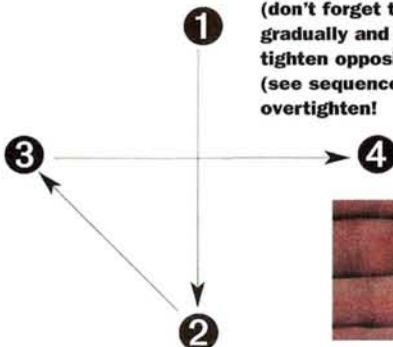


10

The notch in the sleeve's flange and the locator post on top of the crankcase must be keyed together before the sleeve will fit completely into the crankcase.

11

When you retighten the backplate and the head (don't forget the shim), gradually and alternately tighten opposite bolts (see sequence). Don't overtighten!



You've finished! Remember, the new piston/sleeve set needs to be broken in as if the engine were new. ■



## SOURCE GUIDE

**DuraTrax;** distributed by Great Planes Model Distributors, 2904 Research Rd., P.O. Box 9021, Champaign, IL 61826-9021; (800) 682-8948; fax (217) 398-0008.

**O.S.;** distributed by Great Planes.



## Aftermarket Maxx attack!

Is there no escaping the popular Traxxas Maxx trucks? It seems that every other new part I see is an option for these machines. Given the wide variety of goodies out there (and the mounds of "Which accessories should I try?" letters and email I receive), I figured it was time for a survey of the hottest Maxx items to emerge from the many aftermarket machine shops and accessory makers. Here are some of my favorites, in no particular order.



### DYNAMITE

#### ALUMINUM FRONT AND REAR GEARBOX SET

These aluminum gearboxes for the front and rear of your Maxx will add to its looks and strengthen the drive train.

Part no. — DYN7600, \$42.95.



#### ALUMINUM BULKHEADS

The stock plastic bulkheads on any Maxx truck can hold out for only so long before stress and strain take their toll on the plastic. These aluminum bulkheads from Dynamite can take a brutal pounding and go back for more.

Part nos. (F/R) — DYN7601/DYN7602, \$52.95 each.



#### ALUMINUM STEERING BELLCRANKS

A truck with big tires can put a lot of stress on a steering system. Improve the steering on your Maxx truck with this aluminum bellcrank steering system; it will give your truck flex-free, precise steering.

Part no. — DYN7608, \$18.95.



### HARDCORE RACING



#### ALUMINUM SHOCK TOWERS

These tough shock towers are beautifully machined out of aluminum billet, and all their edges are chamfered or rounded for a clean

look. They are available in blue, silver, purple and green and come with stainless-steel socket-head capscrews.

Part no. — HCR-00312, \$49.



#### ALUMINUM CHASSIS

This super-tough, direct-replacement chassis for the E-Maxx is machined out of a solid block of 6061 T-6 aluminum, yet it weighs only 11 ounces. The batteries sit lower in this chassis than in the stock one; plastic battery insulator trays and mounting screws are included, and the chassis is available in blue, green, purple and silver.

Part no. — HCR-00330, \$199.

### THE HOBBY SHOP

#### T-MAXX HEADER

This header has a large-diameter tube welded to a thick aluminum flange. For better exhaust flow, the flange has been slightly chamfered to match the engine's exhaust opening. The headers come with mounting screws, star washers and a gasket. They are offered in blue, red, silver, yellow, green and purple.

Prices: \$25.99 (silver), \$27.99 (other colors).

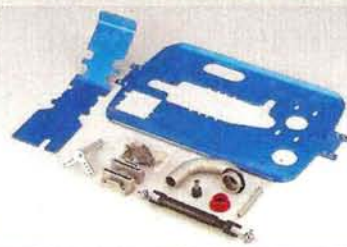


### GPM

#### SWAYBAR KIT

Anyone who has driven a Maxx knows that it tends to lean and will even flip over while cornering at high speeds, but this swaybar kit will keep it flat and on all fours when cornering. All the necessary mounting hardware is included.

Part no. — TMX1311, \$30.



#### TITANIUM EXTENDED CHASSIS .21 KIT

Increase the power of your T-Maxx by adding a .21 engine and this chassis kit. It includes an extended titanium chassis, extended rear skidplate, .21 engine mounts, a throttle pivot and turret, a header and an extended drive shaft. The kits are available in purple, green, blue and silver.

Part no. — HRC-00310, \$249.



# BALLISTIC STUPIDITY

## SKIDPLATES

Ballistic Stupidity skidplates are direct replacements for the Maxx truck's stock front and rear skidplates. They are stamped out of 6061 T-6 aluminum plate, have a brushed aluminum finish and include mounting instructions and mounting hardware. A large center skidplate to protect the transmission case is also offered, and it comes in handy if your driving style is ballistic—and stupid.

**Front and rear skidplates—BS1003S, \$34.95. Center skidplate—BS1002S, \$12.95.**



## CHASSIS BRACE

These stylish lower braces are machined out of aluminum billet and anodized blue. Material has been removed in low-stress areas to reduce weight. Mounting instructions and hardware are included.  
**Part no.—BS1001BL, \$54.95.**



## SERVO SKIDPLATE

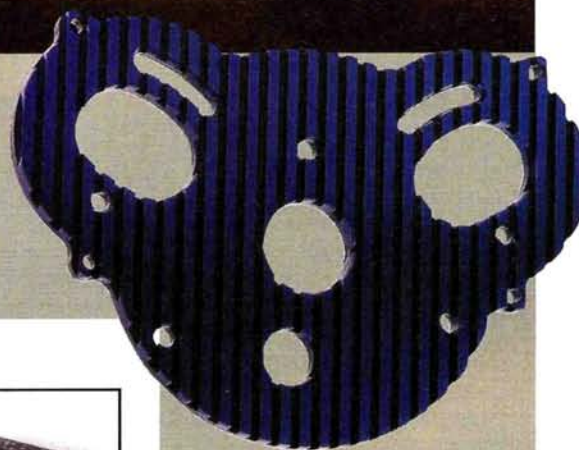
The steering servo in the T-Maxx hangs down below the chassis and is vulnerable to being damaged by rocks and debris. This little skidplate made of 6061 T-6 aluminum gives it the protection it needs. Attach it with the original servo-mounting screws.  
**Part no.—BS1005S, \$19.95.**



## TRINITY

### MONSTER SPRINGS

Trinity claims that these springs will stiffen your E-Maxx's suspension to help reduce body roll for better cornering. They're available in two spring rates—blue (heavy) and black (extra heavy)—in sets of four.  
**Part no.—TK5118 (blue), TK5119 (black), \$7.99/4.**



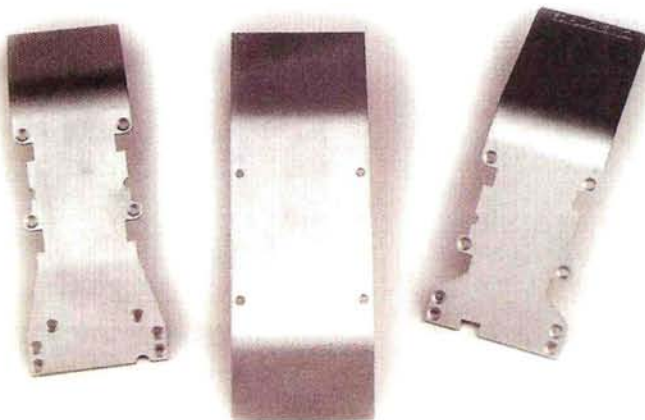
### E-MAXX HEAT-SINK MOTOR PLATE

Trinity now offers a new, improved motor plate for the E-Maxx. It is machined out of aluminum plate and is anodized blue. Vertical slots machined in it provide extra cooling for the motors because their large surface areas help dissipate heat.  
**Heat-sink motor plate—TK5117, \$19.99.**

## RC ALLOYS

### ALUMINUM SKIDPLATES

RC Alloys steps up to the plate with aluminum skidplates (get it? I'm pretty clever) for your truck's front, center and rear. They are laser-cut out of 6061 T-6 aluminum plate and have a satiny, sandblasted finish.  
**Skidplate (F/R)—RC853F/RC853R, \$18.50 each.**  
**Stock center skidplate—RC853C, \$16.50.**  
**3-piece set—RC853SET, \$49.99.**  
**Center skidplate for Rix Gear braces—RC853RIX, \$16.50.**



### ALUMINUM RIMS

RC Alloys' rims are machined out of 6061 T-6 aluminum and are offered in four styles. The rims are hand polished to a bright shine and are also available with a satin finish.  
**Left to right: RC850-05 \$129.99/set, RC850-04, \$159.99/set, RC850-02, RC850-03, \$149.99/set; not shown: the flat-face, 8-hole RC850-01.**





## ROBINSON RACING PRODUCTS

HIGH-PERFORMANCE  
BRAKE KIT

In stock form, the T-Maxx is heavy and fast, and most owners make it even heavier with aluminum upgrade parts. This increases the load on the already hardworking disc-brake system. Robinson's high-performance brake kit is built for strength and power, and it combines the brake disc and hub in one, machined-aluminum unit. The disc is squeezed by two large steel plates with composite pads.

**High-performance brake kit—**  
RRP8560, \$34.99.



## SHOCK UPGRADES

Robinson's aluminum shock bodies and lower spring retainers are available in blue and silver. Upper spring retainers are available in two lengths (4mm and 8mm), so ride height can be adjusted precisely. The aluminum spring retainers are anodized black and have holes drilled in them to reduce weight and allow dirt to escape.

**Aluminum shock bodies—**RRP8511 (blue), RRP8510 (silver)  
\$14.99/2.

**Aluminum spring retainers (upper; lower)—**RRP8520 (4mm),  
RRP8530 (8mm), \$15.99/4; RRP8516 (blue), RRP8515 (silver),  
\$14.99/2.

HIGH-PERFORMANCE RING  
AND PINION SET

Maxx owners want more power for their trucks, and this puts a lot of strain on the trucks' drive trains. Robinson Racing's high-performance diff gears for the Maxx's front and rear are made of hardened steel and can be used to replace the stock gears without modifications. Shims and black grease are included with each ring and pinion set.

**Part no—**8590, \$34.99.

SHOP  
TALK

I have a Kyosho Nitro USA-1 that will not track straight no matter what. I took it to my local hobby shop, and they replaced the servo horn and put spacers in the front suspension to take up the front-end slop. When I drive it at below 1/2 throttle, it is fine, but past that point ... look out! For some reason, it veers to the right. I have tried to correct this by installing a servo with 92 oz.-in. of torque, a new servo-saver, new servo batteries, stiffer springs and thicker shock oil. I also changed the camber-link position and added foam inserts.

What else can I do to stop this from happening? I like the truck, but at this point, I'm ready to give up on it.

Tim L., Phoenix, AZ

You sure have tried a lot of things to solve this problem! But here's one thing you must remember about any monster truck—especially one that is powered by a mega-horsepower engine: tire growth. Like dragster slicks, big, soft monster truck tires "grow" because of centrifugal force. If the differential "unloads" and allows one wheel to spin faster, it will grow larger than the tire on the other side, and the truck will pull toward the side with less tire "growth." You can try stuffing the diff with thick grease to slow diff action, but that's only a very temporary solution; a stronger steering system is the best defense. It takes a powerful steering servo and a rigid steering system to counteract the diff-pull effect. Install a servo with 120 oz.-in. of torque or more; the one you have now won't cut it. If you have a servo-saver on your steering servo, remove it and adjust the bellcrank-mounted servo-saver unit so that it is as tight as it can possibly be. This should minimize your truck's handling woes.

If you have any problems or questions about trucks, or if there is something you would like to see in "4x4," email me at kevinh@airage.com or send your letters to: "4x4"

RC Car Action  
100 East Ridge  
Ridgefield, CT 06877-4606 USA

IMEX Clod  
Buster tires

If you are an RC monster truck fan, you probably remember IMEX, which produced popular aftermarket tires for the Clod Buster. IMEX slowly faded from the mainstream RC scene, and the tires were soon hard to find. Used sets were sold on the Internet for more than \$250! IMEX recognized that demand and decided to start producing the Truck Pull and Baja tires again. They will fit the Tamiya Clod Buster and Bullhead, Tamiya Juggernaut, OFNA Monster Pirate, Kyosho USA-1 electric and nitro and OFNA Monster

Pirate; with slight rim modification, they will also fit the Traxxas Maxx trucks. Part nos.—7595 (Truck Pull), 7584 (Baja). ■



## SOURCE GUIDE

## BALLISTIC STUPIDITY

1981 248th St., Aldergrove, British Columbia, Canada V4W 2B7;  
Rcpits@aol.com;  
Drstupid@ballisticstupidity.com.

## DYNAMITE

4105 Fieldstone Rd.,  
Champaign, IL 61821;  
(217) 355-9511;  
www.horizonhobby.com.

## GPM

Distributed by Hobby Etc. Inc.,  
90 West Pearl St., Nashua,  
NH 03060; (603) 595-8549.

## HARDCORE RACING

25435 Rye Canyon Rd., Valencia,  
CA 91355; (661) 294-5032;  
www.racinghardcore.com.

## IMEX

15391 Flight Path Dr.,  
Brocksville, FL 34604;  
(352) 745-8522;  
IMEX.clodparts.com.

## RC ALLOYS

P.O. Box 29507, St. Louis,  
MO 63126;  
www.rcalloys.com.

## ROBINSON RACING PRODUCTS

4968 Meadow View Dr., Mariposa,  
CA 95338; (209) 966-2465;  
www.robinsonracing.com.

## THE HOBBY SHOP

Aberdeen Townsquare  
Shopping Center,  
Hwy. 34, Aberdeen,  
NJ 07747.



# PRO-LINE

## YOUR 2001 TRACK DIRECTORY



**FREE! Track owners!** You can be included in this directory brought to you by Pro-Line. Just fill out the coupon on page 231. Additional track listings may be found online at [www.rccaraction.com/info/track\\_directory\\_form.asp](http://www.rccaraction.com/info/track_directory_form.asp).

### ALABAMA

**Hobbytown USA Raceway**, 450-Q Schillinger Rd. N., Mobile, Alabama 36608; Rob & Kari Baker, (334) 633-8446; email: HTUMOBILE@aol.com

**Phenix Raceway & Hobby**, 2006 Opelisk Rd., Phenix City, Alabama 36867; Chris Watson, (334) 298-9786; web: members.nbci.com/PhenixHobby/

**R/C Hi-Tech Raceway**, 3303 Meridian St., Huntsville, Alabama 35811; Rick Chambers, (205) 539-1347

**Montgomery's Field of Dreams**, 5924 Ralston Way, Montgomery, Alabama 36116; Mike Westendorf, (334) 281-9432; email: mike\_westendorf@yahoo.com

**Spring Cove International Speedway**, 240 County Rd. 356, Florence, Alabama 35675-7562; email: rvines@hiway.net; web: www.springcovespeedway.com/SpringCove.htm

### ARIZONA

**HobbyTown Raceway**, 1102 E. 22nd St., Tucson, Arizona 85704, (520) 882-8888

**HobbyTown U.S.A.**, 5030 E. Ray Rd., Phoenix, Arizona 85044; Linda McFarland, (480) 598-5282

**R/C Sports Mania**, 3550 N. 35th Ave., Phoenix, Arizona 85017; Gary Dick, (602) 278-3671

**Scottsdale R/C Raceway**, 3023 N. Scottsdale, Scottsdale, Arizona 85251; Scott Anfinson, (480) 945-2186

### ARKANSAS

**Grand Slam Hobby**, 5300 S. Zero St., Ft. Smith, Arkansas 72901; Bryon Shumate, (501) 648-1994

**Hobby Town USA**, 356 E. Joyce, Fayetteville, Arkansas 72703; Darrell Irvin, (501) 571-3730

**Sparks R.C. Raceway**, 7194 Greene Rd., Paragould, Arkansas 72450; Tommy Sparks, (870) 239-3606

### CALIFORNIA

**Castle Hobbies**, 14918 Camden Ave., San Jose, California 95124, (408) 377-3771

**Hobby Central Raceway**, 13461 Community Road, Poway, California 92064; Lee, (858) 513-0373; web: www.hobby101.com

**Hot Rod Hobbies**, 25845 San Fernando Rd., #21, Saugus, California 91350; Jimmy Babcock, (661) 255-2404

**Jake's Performance Hobbies**, 6650 Commerce Blvd., #21, Rohnert Park, California 94928; Jake, (707) 586-3375; email: JPHRacing001@aol.com

**Racer's Haven Raceway**, 7401 White Lane #12, Bakersfield, California 93309; Greg Cooper, (805) 835-0441

**Ripon R/C Speedway**, 701 N. Acacia Ave., Ripon, California 95362; Dan Tanis, (209) 599-5160

**So Cal R/C Raceway**, 19118 Brookhurst St., Huntington Beach, California 92646; Jim or Lana, 714-963-7484; email: info@socalrc.com; web: www.socalrc.com

**Rescue Mini R/C Speedway**, PO Box 206, Rescue, California 95672; Bruce Pease, (530) 621-3948; web: www.innercite.com/~rccracing/

**Showtime R/C Speedway**, 3805 Chester Ave., Bakersfield, California 93301; Don Risner, 661-203-1481; email: Showtimetrack@aol.com; web: WWW.ShowtimeSpeedway.com

**Capital City R/C Center**, 8950 Osage Avenue, Sacramento, California 95829, 916-383-3445; web: www.capitalcityrcc.com

**Sonora R/C Raceway**, 659 Sanguinetti Rd., Sonora, California 95370; Jeff Amos, (209) 536-0580

**Speed Shop Raceway**, 2198 Beach Street, Huntington Beach, California 92646; Yoshira, (949) 673-1434

**California R/C Raceway**, 1230 N. Kramar, Anaheim, California 92806; Brad or Taka, (714) 630-9340

**Delta R/C Raceway & Hobbyshop**, 1201 W. 10th Street, Antioch, California 94509; Jerry, (925) 778-2965; web: www.deltarc.com

**Sacramento RC Racing & Hobbies**, 6201 27th St., Sacramento, California 95824; Andreas Muller, (916) 424-4001; email: andreas123@earthlink.net; web: www.77sunset.com

**Grams Raceway**, 2701 Deer Lane, Willis, California 95490; Nathan Long or Mark Long; email: bladeboy69@hotmail.com

**The Dirt Valley R/C Racepark**, 146 So. Santa Fe St., Hemet, California 92544; Joe Christenson, (909) 925-7592

**Porterville RC Raceway**, 155 n Newcomb, Porterville, California 93257; Dan Beebe, (559) 789-0545; email: dibeebe@thegrid.net

**Fastrax**, 4451 Inyokern Rd., Ridgecrest, California; Danny Quinn, (760) 377-1193; email: webmaster@fastrax.com; web: www.fastrax.com/

**Paradise Hobbies**, 491 Pearson Rd., Paradise, California 95969; David Lafabregue, (530) 877-6447; email: paradisehobbies@aol.com

**Rattlesnake Raceway**, 16470 Benson Rd., Cottonwood, California 96022; Mel or Mike Fisher, (530) 347-7215; email: RC-geez@aol.com; web: members.nbci.com/RC-RCORR

### COLORADO

**Valley West Off-Road RC Club**, 447 30 1/4 Rd., Grand Junction, Colorado 81504; Mike Main, 970-242-8846

**MHOR R/C Raceway**, 15540 E. Batavia Drive, Aurora, Colorado 80012; Jess A. Brockman, (303) 343-0151; email: MHORRC@aol.com; web: members.aol.com/MHORRC/MHOR1.HT ML

### CONNECTICUT

**K&N R/C Speedway Inc.**, 55 West St., PO Box 64, Stafford Springs, Connecticut 06076; Jim Tierini or Steve Schmid, (860) 654-9895

**Manchester Hobbies**, 29 Olcott St., Natchester, Connecticut 06040; Jim or Mike Tierini, (860) 643-4768

**R/C Madness**, 640 Enfield St., P.O. Box 64, Enfield, Connecticut 06082; Christopher Marcy, (860) 741-6501; email: cmarcy@rcmadness.com; web: www.rcmadness.com

**Xtreme Radio Control**, 469 Danbury Rd., New Milford, Connecticut 06776; Paul or Pete, (860) 354-4703

### DELAWARE

**PTV Hobbies**, 1472 East Lebanon, Dover, Delaware 19901; Pierino Vicere, (302) 697-8350; email: pthobbies@mindspring.com

### FLORIDA

**Kissimmee R/C Auto Racing**, Model Craft World, Osceola Square Mall, 3831 West Vine St., Suite 60, Kissimmee, Florida 34741; John Rosser, (407) 944-4913; email: john@craftworldflorida.com; web: www.craftworldflorida.com

**Means R/C Raceway**, 150 Pondell Rd., North Fort Myers, Florida 33903; Pete Gonzalez, (941) 772-2251; email: jaimewootton@worldnet.net; web: members.nbci.com/wootj

**Farmers Hobby Shop & Raceway**, 5006-3 E. Broadway, Tampa, Florida 33619; Greg Cardone, 813-248-3314; web: www.farmershobby.com

**First Coast Speedway**, Arlingtonwood Park, Corner of Lone Star Rd. & Mill Creek Rd., Jacksonville, Florida 32211; Dennis Harvey, 904-744-0400; email: dlhwoody@aol.com; web: www.fortune-city.com/marina/finisterre/1605/fcar

**G&C Hobby Raceway**, 1228 Hypoluxo Rd., Lantana, Florida 33462; George, 561-547-3812; email: gncobbies@cs.com; web: www.gncobbies.com

**Hobby World Raceway**, 7273 103rd St., Jacksonville, Florida 32210; Greg, (904) 772-9022

**Monster Hobbies**, 616 Southeast 10th St., Deerfield Beach, Florida 33441, (954) 428-9118

**Morris Kohl's Raceway and Hobby Shop**, 1202 W. Waters Ave., Tampa, Florida 33604; Morris Kohl, (813) 931-1626

**My Rose Hobbies & Crafts**, 1695 W. Indiantown Rd., Jupiter, Florida 33458; Mark Watson, (561) 744-3800

**Ocala Radio Controlled Car Club**, PO Box 6932, 2612 NE 24th Street, Ocala, Florida 34478-6932; Bill Hamilton, Bonita Hansley, (352) 369-1895; email: staff@ORCCC.org; web: www.ORCCC.org

**Superior Hobby R/C Parking Lot Racing**, 1478 Semoran Blvd., Casselberry, Florida 32707, (407) 834-9299; email: racing@superiorhobbies.com; web: www.superiorhobbies.com

**B&T RC Central**, 811 Playground Rd., Fort Walton Beach, Florida 32547; Ryan Williamson, (850) 863-1666; email: raw072783@aol.com

**Hobby Central**, University Mall, 7171 N. Davis Hwy, Pensacola, Florida 32504; Bill McLester, 850-471-9800; email: trackinfo@hobbycentralrc.com; web: www.hobbycentralrc.com

**Daytona R/C Racing Assoc.**, 1190 Golf Ave., Ormond Bch., Florida 32174; Tim Davis, 904-676-9001; email: tdavis32@earthlink.net; web: www.eo-pages.com/SPORTS/Autoracing4tdavis/

**Pro Hobbies Speedway**, 715 N. Lake Pleasant Rd., Apopka, Florida 32712; Jim, (407) 886-4615; email: prohobby@juno.com

**Tallahassee R/C Speedway**, Easterwood dr., Tallahassee, Florida 32301; Roland Costine, 850 671 2814; email: hidingami@aol.com; web: www.geocities.com/rcdude1/rccars.htm

**Sand Dollar Speedway**, 1900 S. Hwy 87, Suite 1, Navarre, Florida 32566; Jim or Bev Patterson, (850) 939-8788; email: sanddollarspedwy@aol.com; web: members.aol.com/sanddollarspedwy/index.html

**Monza R/C Speedway**, Palmetto Hwy. & SW 40 St., Miami, Florida; Ed Delgado, (305) 437-9895

### GEORGIA

**Sugar Bowl R/C Speedway**, 5272 Nelson Brodgon Blvd., Sugar Hill, Georgia 30518; Shelley Bailey, (770) 945-6709

**The Flight Box Hobby Shop**, 3134-C Rockmart Rd., S.E., Rome, Georgia 30161-6826; Leslie Duke, (706)-234-3014

**Hobby Town Raceway**, 6770 Veteran's Parkway, Columbus, Georgia 31909; Frank Bastos, (706) 660-1793; email: fbastos@mindspring.com; web: www.hobbytown.com

**SCORE-Phil Hurd Raceway**, 41 Cove Dr., Savannah, Georgia 31419; J. Filipow, (912) 232-9985; email: jfilipow@scad.edu; web: www.score-racing.org

**Dalton Raceway and Hobby**, 3036 Parquet Road, Dalton, Georgia 30720; Keith Mantion, 706-226-6699; email: keithm@dalton.net; web: www.daltonraceway.com

**Augusta R/C Racer's Club**, 3628 Crawfordville Dr., Augusta, Georgia 30909; Darren, 706-860-5608

**Primetime Raceway**, 432 S. Wall St., Calhoun, Georgia 30701; Tommy Jackson, 706-625-9037; email: PRIME-TIMEHOBBY@GCCIINTERNET.NET; web: PRIME-TIMEHOBBY@GCCIINTERNET.NET

### HAWAII

**A.S.I. Racing**, 4-356 Kuhio Highway, Kapaa Kauai, Hawaii 96746; Arnold Morales, 808-821-8132

### IDAHO

**Capital Dirt Burners**, PO Box 44754, Boise, Idaho 83711-0754; Jim Small, 208-433-1631; web: www.communities.msn.com/capitaldirt-burners

**Almota Ranch Speedway**, 1732 Eldridge Ave., Twin Falls, Idaho 83301; Casey Clements, (208) 733-8219

**Redneck Raceway**, 1188 1/2 Wilson Ave., Pocatello, Idaho 83201; Randy Wilson or Tim Hancock, 208-238-3353 or 208-238-0609; email: RedneckRaceway@hotmail.com

**Boise Hobby Raceway**, 4516 Overland Rd., Boise, Idaho 83705; Jim, (208) 363-9555

### ILLINOIS

**C.I.R.C.A.**, 905 Bibbs St., Jacksonville, Illinois 62650; Sport 'n' Hobby, (217) 245-1375

### KEY TO SYMBOLS

|  |           |  |                    |
|--|-----------|--|--------------------|
|  | Indoor    |  | Concrete           |
|  | Outdoor   |  | Asphalt            |
|  | Off-road  |  | On-site hobby shop |
|  | Oval      |  | AC power           |
|  | Dirt oval |  | Auto lap counting  |
|  | Carpet    |  | Food available     |



**Machesney Park Raceway**, 1220 Shappert Dr., Machesney Park, Illinois 61115; Gina, (815) 282-1311; email: mp30@homestead.com  


**Monroe R/C Raceway**, 26049 Ridgeland Ave., Monroe, Illinois 60449; Roy or Roberta Moody, (708) 534-2422 (track), (708) 799-5597 (office)  


**Radio-Active Raceway**, 751 N. Bolingbrook Dr., #15, Bolingbrook, Illinois 60440; Jim, (630) 759-7557  



**AJS Raceway & Hobby**, 10211 Keslinger Rd., Dekalb, Illinois 60115; AJ, 815-756-2772; web: www.ajsraceway.com  


**Triangle RC Racing**, 1870 CR1600N, Urbana, Illinois 61803, (217) 469-0121  


**RiverCity Raceway**, 2524 W Farrelly Ave #D, Peoria, Illinois 61615; Don Davis, (309) 682-4000; email: sales@thecollectorschoice.com; web: www.thecollectorschoice.com  



**R/C Raceway**, 1200 West Algonquin Road Lot#3, Palatine, Illinois 60067; Jamie Pauls, 847-612-3140; email: jamie@sharingideas.com; web: www.sharingideas.com  


**Dirt Slingers RC Club**, Ottaville Rd., Ottaville, Illinois 62052; Dan Dierking, 618-498-4437; email: dirtslingers@hotmail.com  



**Venture Raceways**, 19091 West Casey Rd., Libertyville, Illinois 60048, (847) 549-6963  


## INDIANA


**Pete Russell's R/C Speedway**, 1651 W. Franklin St., Elkhart, Indiana 46516; Pete Russell, 219-293-1827  


**GM Raceway**, 1651 W. Franklin St., Elkhart, Indiana 46516; Pete Russell, 219-293-1827  


**Hardesty R/C Raceway**, 11 East Plymouth St., Hamlet, Indiana 46532; Max Hardesty, (219) 867-8800  


**Hobby Barn Raceway**, 1950 Springhill, Terre Haute, Indiana 47802-9694, (812) 299-5773  


**Hobbytown U.S.A.**, 6336 E. 82nd St., Indianapolis, Indiana 46250; Sonny Brown, (317) 845-4106; email: trackinfo@hobbytownindy.com; web: www.hobbytownindy.com  


**P&T Hobbies and Raceway**, RR #2 (Hwy. 60), Box 450A, Mitchell, Indiana 47446; Paul Weber or Tom Logsdon, (812) 849-6666; email: ptnhobby@bigfoot.com  


**RC Barn**, 310 N 125 W, Monroe, Indiana 46772; Mark Lengerich, (219) 692-6600; email: bigdaddy@adamswells.com; web: www.rcbarn.com  


**R/C World of Indiana**, 2246 West U.S. Hwy. 36, Lynn, Indiana 47355; Joe Kolp, (765) 874-2464; email: rcworld@global-site.net; web: www.RCWORLD.com  


**Showtime Lot Racing**, 606 Lower Huntington Road, Fort Wayne, Indiana 46819; Mike Romines, (219) 478-6099  


**Schoolyard RC Speedway**, 3020E US 20, Lagrange, Indiana 46761; David W. Bryan, 219/463-3598; email: dwbryan@kuntrynet.com  



**Duneland Hobbies & Raceway**, 1601 W 37th, Hobart, Indiana 46368; Ron, 219-945-1239; email: RTrobaugh1@email.msn.com; web: www.dunelandhobbies.com  



**Madison Fun Wheelers**, 4-H fairgrounds St.RD. 256, Madison, Indiana 47250; Charles McCormick, 812-265-4576; email: chatchei@seidata.com  


## IOWA

**Hobby Haven**, 7672 Hickman Rd., Des Moines, Iowa 50322; Rick Marble, (515) 276-8785; web: www.hobbyhaven.com  


**IROAR-Vinton Raceway @ Vinton Roller Rink**, 3661B First Ave. SE, Cedar Rapids, Iowa 52402; Ed Karr, 319-362-1291; email: boxkarhobby@aol.com  


**Manly R/C Club**, P.O. Box 23, Manly, Iowa 50456; Bruce Hill, (641) 454-2025  



**Delb's Speedway**, 423 11th Ave. So., Clinton, Iowa 52732; Rusti's Miniatures and Hobbies, (319) 243-2697  


**Radio Control Raceway Park**, 2100 First Avenue North, Fort Dodge, Iowa 50501-6746; Bernie Halverson, (515) 576-3780; email: bhalverson@doggenet.com  


**Wild Bill's Raceway**, 901 W. Jones, Knoxville, Iowa 50138; William Anderson, Jr., 641-842-5973; email: wildbill@iowatele.com; web: www.wildbillsracing.com  

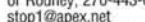

**Ames Radio Controlled Speed Association**, 2337 230th St., Boone, Iowa 50036; Brad Scandrett, 515-432-0467; email: bscan@netins.net  


## KANSAS

**O&B Raceway**, HCl Box 45, Menlo, Kansas; Ron Ball, (785) 855-2370  


**Air Capital Hobbies Raceway**, 8989 W. Central, Wichita, Kansas 67212, (316) 721-4164  


## KENTUCKY

**Pit Stop Hobbies**, 3233 Clarks River Rd., Paducah, Kentucky 42003; Robert or Rodney, 270-443-0052; email: pit-stop1@apex.net  


**Trio Hobbies & R/C**, 216 Redmar Plaza, Radcliff, Kentucky 40160; Maurice Johnson, (502) 351-7547  

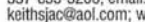

**Dixon's R/C RaceWay**, 1428 Lost Creek Road, Hazard, Kentucky 41701; Jeff Dixon, (606) 436-4820; email: jeffdr1@hotmail.com  


**TK-RAWAY**, 131 KURT DR., BENTON, Kentucky 42025; CHAD LATTI, 270-395-5267; email: clatta@apex.net  


**Mayking R/C Speedway**, 120 Corkwood Lane, Mayking, Kentucky 41837; Jon Fields, 606-633-4700; email: jon1@se-tel.com  


**Coyote Run Raceway**, 218 N. M. L. King Blvd, Lexington, Kentucky 40507; Paul Purcell, 859-253-9330; email: coyoterace1@hotmail.com; web: fullspeedto/coyoterunraceway/  


## LOUISIANA

**Gator R/C Raceway**, 3691 Hwy 171, Moss Bluff, Louisiana 70612; Tony Diaz, 337-855-3206; email: keithsjac@aol.com; web: homepage.mac.com/kmaples/  


**St. Charles RC Speedway**, East Bank Bridge Park 187 Schexnaydre Ln., Destrehan, Louisiana 70047; Al Cazalot, (504) 764-0625; email: stcharlesracer@home.com; web: members.home.net/stcharlesracer  



**Fast Pace Hobbies**, 3101 Lee St., Alexandria, Louisiana 71301; Joseph or Casey Toralba, 318-561-2070; email: fastpacehobbies@aol.com  


**Clay Bowl R/C Hobbies**, P.O. Box 61, Greene, Maine 04236; Pat Cap, (207) 946-5003  



**Central Maine R/C Speedway & Hobbies**, 87 Main Street, Fairfield, Maine 04963; David Prescott, (207) 453-4588; email: rrcracer@mint.net  

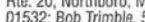

## MARYLAND

**The Track**, 16806 Oakmont Ave., Gaithersburg, Maryland 20877; Mimi Wong, (301) 417-9630; email: mimi-thetrack@yahoo.com; web: www.rctrack.com  



**GPA Hobbies**, 2431 Crofton Lane, Suite 6, Crofton, Maryland 21114, 301-858-0004  


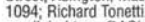
## MASSACHUSETTS

**Megadrome Raceway**, Rt. 8 Curran Hwy, North Adams, Massachusetts 01247; Bob Blanchette, 413-743-7223  


**Northboro Speedway**, 168 Main St., Rt. 20, Northboro, Massachusetts 01532; Bob Trimble, 508-393-8087 or 393-2691  


**Hi-Tech Hobbies**, 1681 Broadway (Rt. 138), Raynham, Massachusetts; Ruben, (508) 880-5373  


**RPM RC Raceway**, 201 N. Quincy Street, Abington, Massachusetts 02351-1094; Richard Tonetti, (781) 857-2300; email: hobtown@AOL.com; web: www.rpmhobbies.com  


**Everett Raceway**, 115 Edith Street, Everett, MA, Massachusetts 02149-1700; Luangel Perez, 781-929-3604; email: elkabong13@yahoo.com  



**The Hab**, 374 West Street, Uxbridge, Massachusetts 01569; Mike Gordon, 508-278-9888; email: thehab@hotmail.com; web: www.thehab.com  


## MICHIGAN

**Great Lakes Racers Club**, 3810 Lousma Drive, Grand Rapids, Michigan 49588; John Warner, 616-948-9798; email: GrBLKsRacers@aol.com; web: www.rogers3.com/glr/  


**Washtenaw R/C Raceway**, 2252 South Main St., Ann Arbor, Michigan 48103; Jim Rousseau, 734-395-5048  


**N.M.R.C.C. Raceway**, Hobby Toy, Main St., Gaylord, Michigan 49735; Gabe, (517) 732-3963; email: hobby-toy@vovoyager.net  


**Raw Roots Race Tracks**, 14623 East Croswell 1/4 mile north on 152nd (off U.S. 31), West Olive, Michigan 49460; Roy Bennink, (616) 399-9338  


**R&L Hobbies & Racing**, 9782 Portage Rd., Portage, Michigan 49002; Rex Simpson, (616) 323-3686; web: www.rlhobbies.com  


**Village Hobbies-n-Crafts**, P.O. Box 153; 195 North Elm, Hesperia, Michigan 49421; Alan or Fran, (616) 854-1374  



**Village R/C Raceway**, 45190 Lake Dr., Decatur, Michigan 49045; Chuck Nolke, (616) 423-7878  


**Fastraxx**, 29106 Old Fort St., Brownstown, Michigan 48173; Greg Yingling, (734) 379-8980; email: fast3@hotmail.com  


**Larry's Performance R/C's**, 43665 Utica Rd., Sterling Heights, Michigan 48314; Larry, (810) 997-4840  


**Lazer RC Speedway**, 2858 N. Wilmoth Hwy., Adrian, Michigan 49221; Russ Johnson, (517) 263-2806  


**R.A.C.E. Inc.**, 3227 Mathews, Jackson, Michigan 49203; Sam Sprang, (517) 787-9161  



**D.R. R/C**, 22789 Northline Rd., Taylor, Michigan 48180; Bobby or Fred, (734) 287-7405; web: www.downriverracing.8k.com  


**Freedom Hill R/C Raceway**, 35372 Wellston, Sterling Heights, Michigan 48312; Jim McKenna, (810) 268-3996  



**E.U.P.**, Kinross Recreation Center, Kincheloe, Michigan 49788; Joel Wiggins, 306-495-3503  


**Backyard R/C Raceway**, Brooks Rd., Brown City, Michigan 48416; Tom Jones, (810) 793-0257; email: JONES\_TNT\_2000@YAHOO.COM  


**Hideaway Raceway**, 6780 Brooklyn Rd., Napoleon, Michigan 49201; David Carlisle, 1-517-536-8821; email: adcarlisle1@netscape.net  

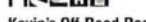

**Jons Hobby**, 4739 E. Pickard Rd. Mt. Pleasant, Michigan 48858; Jon Beutler, (517) 773-5412; email: jonshobby@vovoyager.net  


## MINNESOTA

**Bemidji R/C**, 1015 Miles Ave. S.E., Bemidji, Minnesota 56601; Russ or Ryan, (218) 751-1629  


**Southside Speedway**, 2241 Marion Rd. SE, Rochester, Minnesota 55904; Kevin Guy, (507) 281-3233  


**Time R/C Raceway**, 20 West Lake St., Chisholm, Minnesota 55719; RV, (218) 254-4321  

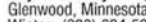

**Kevin's Off-Road Raceway**, 702 So. Washington Ave., Crookston, Minnesota 56716-2317; Kevin Altepeter, (218) 281-7523; email: kevin@krcproducts.com; web: www.krcproducts.com  


**J's Radio Control Race Park**, 22994 290th Ave., Starbuck, Minnesota 56381; Jay Campbell, (320) 239-4827  


**Northwoods Hobby Raceway**, 2638 Hwy 25 North, Brainerd, Minnesota 56401; John or Doug, (218) 829-9257  


**Ray's Raceway Park**, 105 3rd Ave. NE, Glenwood, Minnesota 56334; Dan Winter, (320) 634-5246  



**R/C Racing World**, 235 Main Ave, North, Harmony, Minnesota 55939; Mark McKay, (507) 886-5931 or (507) 886-2224  


**Midwest Hobby & Raceway**, 7577 Brooklyn Blvd, Brooklyn Park, Minnesota 55443; Doug Ringold, 763-569-5069; email: dtr@uswest.net; web: www.mid-west-hobby.com  



**Central RC**, 1620 Central Ave., Minneapolis, Minnesota 55330; Doug Ringold, (612) 781-1640  



**Country R/C Raceway Park**, 24214 325th St., Belview, Minnesota 56214-8115; Charles L. Steffl, 507-641-8115  


## MISSISSIPPI

**X-Treme RC**, 18332 Amanda Lane, Sautier, Mississippi 39574; Marty Capers, (228) 539-2004  



**Joe McFadden Hobbies**, 5531 Fox Meadow Dr., Meridian, Mississippi 39307; Joe McFadden, (601) 483-7000  


**Small Cars Unlimited**, 820 Cooper Rd., Jackson, Mississippi 39212, (601) 372-FAST; web: www.smallcarsunlimited.com  


**Greentree R/C Racepark**, St. Louis Dirt Burners R/C Club, Marshall Rd., Kirkwood, Missouri, (314) 831-2194  


**North Missouri Raceway**, 223 Graves St., Chillicothe, Missouri 64601; Billy Johnston, (660) 646-1120  


**Ozark Mountain Speedway**, Rt. #2 Box 50, H-Highway and County Rd. 31, Noel, Missouri 64854; Clayton Younker, (417) 475-6222  


**Real Blue Vue R/C**, 12019 E. 47th St., Kansas City, Missouri 64133; Steve Hale, (816) 358-0238; email: hrealrc@aol.com; web: www.geocities.com/real\_rc\_raceway  


**Real R/C Raceway**, 24204 State Rt. 58, Pleasant Hill, Missouri 64080; Steve Hale, (816) 540-5584; email: hrealrc@aol.com; web: www.geocities.com/real\_rc\_raceway  



**B&L Hobbies & Raceway**, 2800 Anchor Dr., Park Hills, Missouri 63061; Bob Marler, (573) 431-9444  


**Ozarks R/C Raceway**, 1923 E. Kearney, North Town Mall, Springfield, Missouri 65803; Gene Rhodes, 417-873-9350(Track), 417-742-4376(Home); email: OzarksRaceway@aol.com  


**RCTRAX Racing Club of Central Missouri**, 6150 Old Rt 124, Hallsville, Missouri 65255; Gary Phillippe, 573-886-3799 or 573-442-8183; email: gary.phillippe@verizon.com  


**Novelty R/C Raceway**, RR1 Box 132A, 5th & Main, Novelty, Missouri 63460; Rex & Jena Franke, 660-739-4546; email: rexjen@markwain.net; web: sites.netscape.net/trackman2rex/home-page  


**All Seasons Hobby**, 29 O'Fallon Square, O'Fallon, Missouri 63366; Bob Daniels, (314) 281-8767  


**Hobbies 'N Stuff Raceway**, 204 Mail Pkwy., Wentzville, Missouri 63385; Tim Satchwill or Randall Olds, (314) 327-6006  


## NEBRASKA

**Hobbytown USA Raceway**, N 1st St. & Cornhusker Hwy., Lincoln, Nebraska 68508; Ben Smith, (402) 434-5056  


**Mr. Bill's**, 450 West 2nd St., Hastings, Nebraska 68901; Bill J. Ries, (402) 462-4865  


**O.N.R.O.A.D.**, 3307 N. 58 St., Omaha, Nebraska 68104; CoRK Jacobs, (402) 556-8674  


**OTWG Carpet Raceway**, 55129 849th Rd., Norfolk, Nebraska 68701; John Schoenauer, (402) 644-7922  


**RC Motorsport Off-Road Raceway**, 5600 Mass Rd., Papillion (Omaha), Nebraska 68133; Marty Stepanek, (402) 593-6133  


**The Salvation Army Speedway**,



**Hobby Town Raceway**, 220 N. 66th, Lincoln, Nebraska 68505; Chris or Chad, 402-434-5056; email: eaststore@aol.com



## NEVADA

**Bill's Hobby Shop**, 1000 N. Nellis Blvd., Las Vegas, Nevada 89110; Bill Schultz, (702) 531-3293; web: www.billshobbyshop.com



**Dansey's Indoor R/C & Hobbies**, 741 N. Nellis, Las Vegas, Nevada; David Lugo, (702) 453-RACE or (888) 675-8963; web: www.danseys.com



**Lizard Raceway**, P.O. Box 1248, Verdi, Nevada 89439; Jeff Griffin, (702) 345-6573



## NEW HAMPSHIRE

**Economy R/C Speedway**, 4 Maple St., Winchester, New Hampshire 03470; Harold Thomas, (603) 239-4482 or 239-6470



**RT 106 Racepark**, 743 Clough Mill Rd., Pembroke, New Hampshire 03275; David Daniels, 603-224-7223; email: david@collectracing.com; web: www.106racepark.com



**North Haverhill R/C Racing**, Main St., N. Haverhill, New Hampshire 03774; Shelly White, (802) 757-2579



## NEW JERSEY

**Family Hobbies Raceway**, 3576 N.W. Blvd. & Weymouth Rd., Vineland, New Jersey 08360; Linda Vogel, (609) 696-5790



**Jackson R/C Racing**, P.O. Box 565, Christopher Columbus Blvd., Jackson, New Jersey 08527; Al Sodano, 732-364-6422(AI) 732-928-8963(Ed)



**Jefferson Speedway**, 5494 Berkshire Valley Rd., Oak Ridge, New Jersey 07438, (201) 697-7525



**Jerry's Hobby Center & Raceway**, 336 Rt. 22W, Greenbrook, New Jersey 08812; Jerry or Gary, (908) 752-6030



**LBRA Track**, 392 Warburton Pl., Long Branch, New Jersey 07740, (908) 222-5122



**Millville R/C Oval & Roadcourse**, Cedarville Rd., Millville, New Jersey 08332; William Denstoz, 856-327-4640



**On Trax Hobbies**, 3101 Rte. 70, Browns Mills, New Jersey 08015; Joseph DiGirolamo, (609) 793-0422



**American Raceway**, 557 Englishtown Road, Englishtown, New Jersey 07726; Doug Venner, (732) 446-3737; email: DMC12@prodigy.net; web: www.americanraceway.com



**South Jersey Cost Controlled Racing**, 25 Jackson Lane, Sicklerville, New Jersey 08081; Ray Murray, 856-629-9413; email: RaysTrack@webtv.net; web: community.webtv.net/RaysTrack/SouthJerseyCost



**The Race Place**, 1151 Hwy. 33, Farmingdale, New Jersey 07731; John Fary, (908) 938-5215

**America's Hobby Center Inc.**, 8300 Tonnelle Ave., North Bergen, New Jersey 07047; John Many, (201) 662-0777



**Checkerboard Raceways**, P.O. Box 240, Elwood, New Jersey 08217; Ray Murray, 856-629-9413; email: RaysTrack@webtv.net



**PottBells R/C Speedway**, 1039 Landis Ave., Vineland, New Jersey 08360; Drew Anastasio, 856-875-2132; email: PottBells\_RC@yahoo.com; web: www.PottBells.homepage.com



## NEW MEXICO

**Big Boys Toys Raceway**, 1735 Juan Tabo, Albuquerque, New Mexico 87112, (505) 298-1023; web: www.bigboystoys.theshoppe.com



**Las Cruces R/C Racer's Association**, Meerscheidt Recreation Center, Walnut and Hadley by BMX, Las Cruces, New Mexico 88001; Robert Heinsen, Jim Meerscheidt, Robert - (505) 526-6856, Jim 527-4284; email: jade@zianet.com; web: www.zianet.com/jade/lcrca.htm



**Albuquerque R/C Off-Road Raceway**, Track: Tom Tenorio Fields on Coors and Arenal; Mail: 5409 Tamariz Dr. NW, Albuquerque, New Mexico 87120; Bill Mitchell, (505)243-0681(W); 898-6181(H); email: mitchelw@flash.net



## NEW YORK

**Jerry's Raceway**, 111 S. Applegate Rd., Ithaca, New York 14850; Jerry and Lori Achilles, (607) 277-0940



**LI 1/4-Scale Racers**, 63 Horton Dr., Huntington Station, New York 11746, (516) 351-5384



**Long Island Raceway**, 168 Broad Hollow, Farmingdale, New York 11735; James, (516) 845-7223; web: www.raceway.com



**Performance Plus Radio Control Speedway/The Hobby House**, 1141 1/2 Jones & Gifford Ave., Jamestown, New York 14701, (716) 488-1772



**PRO Speedway**, 5 Washington St., Cattaraugus, New York 14719; Marc Pritchard, (716) 257-3101



**Radio Hill Raceway**, 1219 Shannon Corners Rd., Dundee, New York 14837; Bill Brewer, (607) 243-8641



**Rampage R/C & Hobbies**, 782 Rt. 9G, Rockledge Plaza, Hyde Park, New York 12538; Brian Walker, or Kevin Bobb, (914) 229-1379



**R/C Competition Corner**, 2202 Brewerton Rd., Mattydale, New York 13211; Lori and Cos Cirriello, (315) 455-8718



**Silver Star R/C Club**, Centennial Park, Carson City, New York 89501, (702) 853-3953



**Southern Tier Raceway**, 88 Paige St., Oswego, New York 13827; Anita Harding, (607) 687-5395



**South Shore Hobby & Raceway**, 464 East Main St., Patchogue, New York 11772; Benny or Bonnie, (516) 758-5567



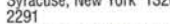
**Tri County Remote Control Car Club**, 33 West Decker St., Johnstown, New York 12095; Tom Leville, (518) 725-1279



**TARMAC Ultimate R/C Raceways**, 28-30 Mountain View Rd., Poughkeepsie, New York 12603; Todd, (845) 342-5409, tracksite (845) 454-8276; email: toddp@tarmacraceway.com; web: www.tarmacraceway.com



**Walt's Hobby**, 2 Dwight Park Dr., Syracuse, New York 13209, (315) 453-2291



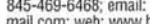
**Westfield R.C. Speedway**, 27 Clark St., Westfield, New York 14787; John or Jared Lindstrom, (716) 326-2339; 716-326-2309



**MTW Raceway**, 11930 Johnny Cake Hill Rd., Cato, New York 13033; Tim Amie, (888) 39-HOBBY; (315) 626-2029; email: docsavage@mtwraceway.com; web: www.mtwraceway.com



**BarnStormers Speedway**, Koefos Drive, Chester, New York 10918; Lou, 845-469-6468; email: iamstysma@hotmail.com; web: www.barnstormers.virtualave.net



**Brownie's Pro & Sport Hobbies**, 124 Bennett St., Staten Island, New York 10302-1426; John Brown, (718) 727-2194



**Bruckner Racing**, 2908 Bruckner Blvd., Bronx, New York 10465; Thomas Baffers Jr., (800)-288-8185



**BSK Hobbies & Raceway**, 120 Main St., Hornel, New York 14843; Bruce Harris, (607) 324-4011, (800) 603-0197



**C&C Speedway**, 570 Conklin Road, Binghamton, New York 13903; Eric Boyd, (607) 773-2044



**C&D Raceway**, 12542 NYS Rte. 12E, Chaumont, New York 13622; Chris or Don Bourquin, (315) 649-5403



**Capital District Radio Controlled Stock Car Club**, 27 Venus Dr., Loudonville, New York 12211; Peter Willis, (518) 482-7128; email: rcpete12211@yahoo.com; web: cdrcsc/homestead.com



**Chipmunk Hill R/C Speedway**, 217 Pine St., Theresa, New York 13691; Ted or Pete House, (315) 628-5065



**East Coast R/C Hobbies**, Floyd Bennett Field, Brooklyn, New York 11204; John Giangrande, 718-627-3814



**Foothills R/C Speedway**, 3200 Chestnut St., Oneonta, New York 13820; Dave Osterhoot, (607) 432-5098



**B & S R/C Speedway**, 15661 Route 31, Albion, New York 14411; Dan, (716) 589-0621; email: bandsspeedway@go.to; web: www.go.to/bandspeedway



**Brennan's RC Hobbies**, 6368 State Rt. 5, Vernon, New York; Bill or Tom Brennan, (315) 829-4930



**Fastraks**, Mini Pines Village, Hogsburg, New York 13655; Mark Castonguay, (518) 358-3686; email: froghobb@northnet.org; web: www.fastraks.8m.com



**R.C. Raceway**, 1961 Rt. 6, Carmel, New York 10512; Rich, (914) 228-0001



**Competition Hobby**, 1006 Loudon Rd., Cohoes, New York 12047; Howie Cummings, 518-786-3622; email: hic300@aol.com



**LI Wheels Raceway**, 284 West 5th Street, Oswego, New York 13126; Bill Meyer, 343-6566; email: liwheelsraceway@hotmail.com; web: liwheelsraceway.tsx.org



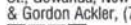
**Whitestone**, 30-56 Whitestone Expr. (Dept. of Motor Vehicles, Flushing, New York 11374; Rudolf Ardlia, (718) 966-6155



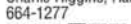
**Willis Hobbies R/C Speedway**, 300 Willis Ave., Mineola, New York 11501; Ken Ford, (716) 532-9463



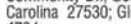
**ZOAR Road Speedway**, 15318 Arnes St., Gowanda, New York 14070; David & Gordon Ackler, (716) 532-9463



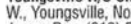
**Atlantic Coast R.C.**, 8-A Lockhead Ct., Greensboro, North Carolina 27409; Charlie Higgins, Harry Johnson, 336-664-1277



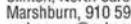
**Rosewood RC Speedway**, 651 Community Dr., Goldsboro, North Carolina 27530; Glenn Elam, 919-731-4734



**Youngsville R/C Club**, 6516 NC 96 Hwy W., Youngsville, North Carolina 27596; James Ray, (919) 556-0446



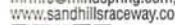
**Carolina Dragway**, 115 Kerr St., Clinton, North Carolina 28328; Corbett Marshburn, 910 592-9489; email: carolinadragway@aol.com



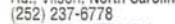
**A&J R/C Models**, 2051 Anthony Rd., Burlington, North Carolina 27215; Jerry Love or Andrea Thompson, (910) 227-4556



**Sandhills Raceway**, P.O. Box 178, Southern Pines, North Carolina; Mike Russel, 910-245-4450; email: mrmrc@mindspring.com; web: www.sandhillsraceway.com



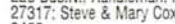
**The Antique Barn**, 2810 Forest Hills Rd., Wilson, North Carolina 27893, (252) 237-6778



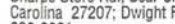
**Badin Shore Raceway**, 1730 Jackson Lake Rd., High Point, North Carolina 27263; Jimmy or Tim Martin, Fax (910) 431-6407



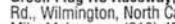
**C/C Hobby Speedway**, 8358 U.S. Hwy. 220 Bus.N., Randleman, North Carolina 27317; Steve & Mary Cox, (910) 495-3482



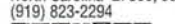
**Chatham R/C Raceway**, 326 Reno Sharpe Store Rd., Bear Creek, North Carolina 27207; Dwight Fields, (919) 898-2991



**Green Flag RC Raceway**, 107 Harley Rd., Wilmington, North Carolina 28401; Mike McLemore, (910) 452-1620



**R&D Speedway**, 418 Main St., Tarboro, North Carolina 27886; John Dupree, (919) 823-2294



**Ride & Slide R/C Raceway**, 5319 Yadin Rd., Fayetteville, North Carolina 28303; Bill Culbertson, (910) 867-4202



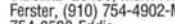
**Radio Jockey's Parkway**, "RJ's", Rt. 9 Box 651, Fayetteville, North Carolina 28301; Tony Starling, (910) 486-4820; web: www.wave-net.net/mshutt



**R.C.R. Speedway**, 1415 Henderson Grove Church Rd., Salisbury, North Carolina 28147; Ronnie Linker, (704) 637-2565



**Southern RC Motorsports Club**, Hwy 17S, PO Box 1651, Shallotte, North Carolina 28459; Mark Whitt or Eddie Ferster, (910) 754-4902-Mark or (910) 754-8528-Eddie

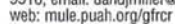


## NORTH DAKOTA

**Northern Mini Racers**, 1000 36th St. SE, Minot, North Dakota 58702; Mike, (701) 838-5818



**Grand Forks Remote Control Racers**, 915 25th ave so, Grand Forks, North Dakota 58201; Dan Miller, 701-746-9910; email: dandmiller@juno.com; web: mule.puah.org/gfrcr



**River City R/C**, 2714 Main Ave., Fargo, North Dakota 58103; Chris, (701) 235-1272



## OHIO

**R&R Speedway**, 1258 W. Alexis, Toledo, Ohio, (734) 665-2849; email: rnr@rnrspeedway.iwarp.com; web: www.mrspeedway.iwarp.com



**American Ohio Sprint Car**, 1708 Empire Rd., Wickliffe, Ohio 44092; Gary Waldhelm, (440) 944-9966



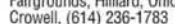
**Classic Hobbies**, 1994 E. Waterloord, Akron, Ohio 44312; Walt Ellis, (330) 733-6400



**CORCAR/Sams Club**, 128 Amity Rd., Galloway, Ohio 43119-8732; Bill Stevenson, (614) 870-7159



**Columbus R/C Racing Club (C.R.C.R.C.)**, Franklin County Fairgrounds, Hilliard, Ohio 43026; Jeff Crowell, (614) 236-1783



**D&J R/C Raceway**, 801 W. Market St., Clinton, Ohio 44667; Don Yoder or Mark Nussbaum, (330) 682-4266



**Glass City Radio Control**, 2620 Ivy Pl., Toledo, Ohio 43613; Frank Johnson, (419) 472-1286



**Greentown R/C Raceway**, 3353 Perrydale, Greentown, Ohio 44630; Chuck Lambert, (330) 364-6585



**Hobby Shop Raceway**, 2096 Miami, Centerville, Ohio 45459; The Hobby Shop, (937) 436-6161



**Hobby World**, 3499 SR 59, Ravenna, Ohio 44266; Tom Fry, fax (330) 296-0894



**Lafferty R/C Raceway**, Box 153, 70228 Hurrah St., Lafferty, Ohio 43951; Chris Christman, (614) 968-4818



**Mid American Raceway**, 13150 Airport Hwy., Swanton, Ohio 43558; Bill or Chuck, (419) 475-9459



**Nothing But Air R.C. Track**, 34632 True Rd., Logan, Ohio 43138; Gary Lloyd, (740) 385-0288



**TARCAR**, 7216 Nebraska Ave., Toledo, Ohio 43617; Bill Bridges, (419) 826-3859





**Action Hobbies**, 4955 S. Memorial, Tulsa, Oklahoma 74145; David Cole, (918)6638998; email: acthobii@aol.com

**Enid R/C Speedway**, 1831 S. Van Buren, Enid, Oklahoma 73703; Darin Pendleton or Fred Hollis, (580) 554-9400; email: darin@enid.com

**Action RC Speedway**, 3616 SE 59th, Oklahoma City, Oklahoma 73135; Jerry Hawthorne, (405) 670-7770; email: ginna@flash.net; web: www.actionrc.com

**R/C Speedway of Lawton**, 202 Southeast B Ave., Lawton, Oklahoma 73501; Rick, (580) 355-8040

## OREGON

**Competition Racing Association**, 17941 NE Gleason, Portland, Oregon 97230; Mark Taylor, (503) 761-1334

**D.I.R.T. R.O.A.D. Club**, 65540 73rd St., Bend, Oregon 97701; Daleyale & Edward Gietz, (541) 388-2932 or 1-800-475-6040 then ext. 777; email: blue@coinet.com

**R/C Plus Hobbies Raceway**, 1685 25th St. SE, Salem, Oregon 97302; Ron Smith, (503) 364-9188; email: rcplus@rcplus.com; web: www.rcplus.com

**R/C Speed Center**, 2810 N. Pacific Hwy., Medford, Oregon 97501; Gene and Betty Jean Skelton, (541) 779-8298

**Yamhill County R/C Car Club**, 722 Morgan Ln., McMinnville, Oregon 97128; Larry Rucker, (503) 472-7234

**Competition Racing Association**, 17941 N.E. Gleason, Portland, Oregon 97230; Mark Taylor, (503) 761-1334

**Rose City Scale Racing**, Highway 24 K-Mart Parking Lot, Milwaukie, Oregon 97222; Rick Strauss, (503) 631-2929

## PENNSYLVANIA

**Mad-O Hobby Raceway**, 850 Freedom Crider Rd., Freedom, Pennsylvania 15042, (724) 774-0240; email: mado-hobby@forcomm.net

**McCullough's Offroad**, 108 Callen Rd., Sarver, Pennsylvania 16055; Doug McCullough, (724) 352-0116; email: DMCC323@aol.com

**Racers Edge R/C Racing**, RR#1, Box 271, Smethport, Pennsylvania 16749; Rick Morgan or Johna Simar, (814) 887-2269; email: morg@penn.com; web: users.penn.com/~morg/track.html

**Courtview Raceway**, 20 S. Main Street (lower level), Washington, Pennsylvania 15301; Aaron Stimmel Jr., (724) 225-4302

**DC Ultra Trax**, 13 York Rd., Wycombe, Pennsylvania 18974; David Cowan, (215) 672-5200

**Dreamboat Hobbies**, 2810 Pennsylvania Ave. W., Warren, Pennsylvania 16365; Louie Dussia, (814) 723-8052

**Koontz's Home & Hobby Center**, 1205 Hoover St., Pittsburgh, Pennsylvania 15204, (412) 331-3866

**Kranzel's R/C Raceway & Hobbies**, 415-B Bosler Ave., Lemoyne, Pennsylvania 17043; David or Stuart Kranzel, (717) 737-7223

**Little Plum R/C Hobbies**, RR 1 Box 330, Lock Haven, Pennsylvania 17745; Larry Duck, (570) 769-1984

**Lugnut Raceway**, 1713 Bethlehem Pike, Hatfield, Pennsylvania 19440; Bill Henning or Kathy Anderson, (215) 822-5831

**Marshall's R/C Raceway**, RR 4, Box 640, Honesdale, Pennsylvania 18431; Bill or Dot Marshall, (570) 729-7458

**Pinon Twisters**, 3M Plant, Green Ln. and Mitchell, Bristol, Pennsylvania 19007; Mark or Tony, (215) 632-2344 or (215) 742-3560

**Pit Stop Hobbies**, 262 W. Main St., Mount Joy, Pennsylvania 17552, (717) 653-6222

**Prop & Wheels Raceway**, 139 W. Broad St., Tamaqua, Pennsylvania 18252; Gail Walters, (570) 668-2288

**The Raceway at River Junction**, 1216 4th St. (behind cemetery), Beaver, Pennsylvania 15009, (724) 728-5571

**RC Ave. Raceway**, 324 McKinley Ave., Latrobe, Pennsylvania 15650, (412) 537-5501

**RC Outfitters RCO Raceway**, 519 Broadway, Hanover, Pennsylvania 17331; Chris Shaffer, (717) 633-9490; web: rco.webjump.com

**R/C Pro III**, 910 Chestnut St., Shamokin, Pennsylvania 17866; John Swisher, (570) 848-7763

**Riverside Raceway**, PA Ave. W & Hickory, Warren, Pennsylvania 16365; Jeff, (814) 723-4211

**S.A. Hi Banks, Hahn's Dairy Rd.**, Palmerton, Pennsylvania 18071; Scott Andrews, (610) 826-4583

**Staub Bros. R/C Speedway**, 31 Locust St., Gettysburg, Pennsylvania 17325; Todd or Scott Staub, (717) 334-5445

**TnT Raceway**, Randolph Rd., Great Bend, Pennsylvania 18821; Frenchie or Ed Kraft, (607) 775-1750 or (717) 967-2604

**Trains & Lanes Raceway**, 3825 Northwood Ave., Easton, Pennsylvania 18045; Jeff Setzer, (610) 253-8850 or (800) 447-4891

**Willow Mill Speedway**, 37 N. Season's Dr., Dillsburg, Pennsylvania 17019; George Verbovitz, (717) 432-4445

**World A.T.L.A.S./P.A.R.C.E. R/C Raceway Hobby Shop & R/C Club**, Chester Exchange Mall, 10th & Morten St., Chester, Pennsylvania 19013; Darryl Lee or Marc, (610) 874-2540

**Newville RC Speedway**, 130 Doubling Gap Rd., Newville, Pennsylvania 17241; Randy or Mike, 717-776-5547; email: newwillersspeedway@yahoo.com; web: www.newwillersspeedway.com

**TRP**, 430 Shoemaker Street, Kingston, Pennsylvania 18704; Rob Yeager, 570-283-3066; email: RCR0899@AOL.COM

**The Hobby Depot**, 558 Lancaster Ave., Malvern, Pennsylvania 19320; Chris McGovern, 610-725-8317

**WillCam Raceway**, RD #7 Box 53, Punxsutawney, Pennsylvania 15767; James Campbell, (814) 939-4251

**B&B Raceway**, 1301 Pine St., Berwick, Pennsylvania 18603; Ray Berry, Jr., (570) 759-3469

**D&D Hobby Shop**, 305 3rd St., Rouseville, Pennsylvania 16344, (814) 676-4475

**The Mushroom Bowl**, 960 W. Cypress St., Kennett Square, Pennsylvania 19348; Bruce or Drew, (610) 444-1850

**The Raceway at River Junction**, 1216 4th St. (behind cemetery), Beaver, Pennsylvania 15009, (724) 728-5571

**Somerset Hobby Shop Outlet**, 4309 Glades Pike, Somerset, Pennsylvania 15501; Bob Rhodes, (814) 445-6214

## PUERTO RICO

**Area 51 On Road Track**, Carr 931 Km 1.5, Gurabo, Puerto Rico 00745, (787) 739-1572

**Cidra R/C Track**, Carr 7787 Km 1.6, Bo Beatriz Adentro, Cidra, Puerto Rico 00739; Humberto (Tito) Lizardi, (787) 739-1572

**Dorado Offroad R/C Track**, Pista Atletica Bo. Higüillar, Dorado, Puerto Rico 00646; Roberto Lamosa/Jaime Ramos, (809) 796-5603 or (809) 796-1734

**Hacienda Muñoz R/C Track**, Carr. #14, Juana Diaz, Puerto Rico 00795, (809) 837-7083

**Hi-Speed C Raceways**, 422 San Caludio Ave., San Juan, Puerto Rico 00926; Carlos Ortiz, (787) 283-0198

**Isabela R/C Track**, 390 Sur. Guaynabo, Puerto Rico 00969; Fernando Salcedo or Alvaro Obregon, (787) 720-1176

**Mech Tech Touring Park**, Parque Industrial Sal Aguas Buenas, Caguas, Puerto Rico 00725; HUMBERTO (TITO) LIZARDI, (787) 739-1572; email: tlizardi@hotmail.com

**Bayamon R/C Park**, Carr. 167 Km 10.1 Bo. Dajao RR 5 Box 4999 PMB 44, Bayamon, Puerto Rico 00956; Damian Cruz & Javier Rivera, (787) 869-8092 & 401-2770; email: damian@bayamonrc-park.com; web: www.bayamonrcpark.com

**Tropical Raceway Track**, Carr 643 Km 4.0 Bo Pugnado, Manati PR, Manati, Puerto Rico 00674; Hector Pabon/George Pabon, (787) 864-8884 or (787) 884-9294; email: trophob@coqui.net

**Tri-State R/C Raceway**, 205 Hallene Rd., Warwick, Rhode Island 02886; Raymond Dean, (401) 738-4908

## SOUTH CAROLINA

**Carolina R/C Speedway**, 1555 Turkey Highway, Easley, South Carolina 29640; Craig Prah, (864) 295-1209; email: cprahlrc@mindspring.com; web: www.carolinarc.com

**Extreme R/C Raceway**, 5976 Grace Lane, Myrtle Beach, South Carolina 29577; Kevin Bullock, (803) 236-2083

**Atlantic World of Hobbies**, 2458 Remount Rd., North Charleston, South Carolina 29406; Jimmy Closson, (843) 554-3546

**The Grove Racing Center**, 939 S. Anderson Rd., Rockhill, South Carolina 29730; Mike Durham or Don Faris, (803) 327-4121

**Hobbies and More**, 1570 S. Main St., Darlington, South Carolina 29532; Jerry Pollard, (803) 393-0355

**J&M R/C Hobbies**, 5341 Dorchester Rd., Evanston, South Carolina 29418; Mike Smith, (803) 552-9449

**ORA Atomic Racing Facility**, 373 Boyd Pond Rd., Aiken, South Carolina 29803; Bill Jackson, (706) 855-0846 or (803) 642-0314

**Bethany Motor Speedway**, 959 Wilmoir Rd., Clover, South Carolina 29710; Eddie Spearman, (803) 222-4758

**Darlington R/C Raceway Hobbies & More**, 1570 S. Main St., Darlington, South Carolina 29532, (843) 393-0355

**The Racing Connection**, 4375 Juniper Bay Rd., Conway, South Carolina 29527-4129; Dave Hamilton, (843) 397-0124; email: dad@scscoast.net; web: homepages.about.com/superdave09

**Skateland USA**, 202 Hwy. 29, Anderson, South Carolina 29621; Jon Fulmer, (864) 225-1840

## SOUTH DAKOTA

**Action R/C Raceway**, 107 N. Main (entrance in rear - don't send mail), Mitchell, South Dakota 57301; Royal (day); Roger (evenings), (605) 996-9871 (days); (605) 996-2897 (evenings); email: pioneer@santel.net; web: action-raceway.homestead.com/main.html

**Boomerangs Raceway**, 105 N. Main, Hartford, South Dakota 57033; Ed Smithback, (605) 528-7345

**Dakota Off-Road Racers**, 2989 W. Br. Co. 12, Aberdeen, South Dakota 57401, (605) 226-0604

**Goldtrax Raceway**, 409 E. High, Lead, South Dakota 57754; Steve Brown, (605) 584-2355

**R/C Action Raceway**, SE Corner at 484th & Hwy. 38, Sioux Falls, South Dakota 57105; Brian Cox, (605) 357-373-0511

**Tri-State R/C Club**, Sioux Empire Fair Grounds, Sioux Falls, South Dakota 57105; Chad Walth, (605) 357-9654; email: man@email.msn.com

## TENNESSEE

**D&M's Downtown Raceway**, 2703 U.S. Hwy. 411S, Maryville, Tennessee 37303, (423) 681-8919

**Futrell's R/C Hobby Shop**, 1715 Carson Ave., Seymour, Tennessee 37865; Dan Futrell, (423) 908-9526

**Hobby Town USA**, 2000 Mallory Lane, Franklin, Tennessee 37067; Bobby Mills, (615) 771-7441

**MSA R/C Racing**, Rt. 12 Box 489 B, Crossville, Tennessee 38555; D.R. Findley, (931) 456-0027

**TnT Raceway**, 643 Loop Hollow Rd., New Tazewell, Tennessee 37825; Cliff Swett, (423) 626-9065 or (423) 869-8942

**W.O.W. Raceway**, 59 Luray Rd., Beech Bluff, Tennessee 38313; Brad Jones, (901) 427-1625; email: wovwmgr1@abac.com; web: go.to/wovwacing

**Blue Springs Speedway**, 2905 Blue Springs Rd., Cleveland, Tennessee 37311; Tyler Price, (423) 478-1443; email: Byvrmtrsp43@aol.com; web: n/a

**Robertson's R/C Raceway**, 2811 Hwy 45 South, Jackson, Tennessee 38301; Travis Robertson, 901-423-6984; email: RobertsonsRC@aol.com

**RC SPEEDWAY**, 903 17TH STREET, CLEVELAND, Tennessee 37323; JAMES MORGAN, 423-472-7854 OR 645-5771; email: JMORGA59@BELL.SOUTH.NET; web: N/A

## TEXAS

**The Rollcage**, 3819 Hwy 34 South, Greenville, Texas 75402; Guy Allen, (903) 883-0332; email: rollcage2000@earthlink.net; web: www.therollcage.com

**Mammoth R/C Racing**, 4221 Spencer, Pasadena, Texas 77504; John, (713) 946-2522

**Star/Car Raceway**, 5802 Patton St., Corpus Christi, Texas 78415; Glen Stead, (512) 949-8525; Race Hotline, (512) 881-6105

**Texas Speedway**, 6707 Chimney Rock, Bellaire, Texas 77401; web: TexasSpeedwayRC.com

**Warehouse Radio Controlled Raceway**, 5119 Plains Blvd., Amarillo, Texas 79101; Craig or Darren Waddell, (806) 374-6485

**W.E.S. Hobby Race**, 980 S. Fourth St., Beaumont, Texas 77701; Edmond Richards, (409) 839-4929

**215 Speedway**, 1814 County Road 215, Abilene, Texas 79602; Clyde Gardner, (915) 673-2351

**B&B R/C Hobbies**, 700 East 4th, Big Spring, Texas 79720; Walter Bumbulis, (915) 263-1790

**Big Mike's R/C Raceway**, 1405 W. Cotton St. (behind the Locker Room), Longview, Texas 75804; Mike Sumrow, (903) 297-7814

**Discount Hobbies**, 1722A West Anderson Loop, Austin, Texas 78757; Tony Bermudez, (512) 458-2324

**Drycreek Raceway**, 2518 I-30W, Greenville, Texas 75402; Micky Alphin, (903) 527-5381

**K&M Racing**, 45000 Hwy. 59 N., New Caney, Texas 77357; Brent Mahaffy, (281) 399-9777

**Hal's Hobby Raceway**, 1440 Bessmer, El Paso, Texas 79936, (915) 591-2213

**Hobbytown USA**, 999 E. Basse Rd., Suite 177, San Antonio, Texas 78209; Joe Sena or Clark Baisdon, (210) 829-8697; fax (210) 829-8707

**Indy R/C World**, 220 Saturn Rd., Garland, Texas 75041; Steve Webster, (972) 271-4844; fax (972) 271-4502; web: www.indyrcworld.com/indy\_track.htm

**Issac's Race Track**, 18177 Gulf Frwy., Houston, Texas 77598; Issac Ben-Ezra, (281) 488-8697

**MBRC Off-Road Raceway**, 204 D&E Valley Lane, Kennedale, Texas 76133, (817) 292-5055

**Mike's Hobby Shop Superstore and Raceway**, 1605 Crescent Circle, Carrollton, Texas 75006, (972) 242-4930; web: www.mikes hobbyshop.com

**Performance Raceway**, 1106C Witte Rd., Houston, Texas 77055; Jorge Tabush or Terry Schmid, (713) 484-4458

**Rev It Up Raceway Practice Track**, 3076 Keller Rd., Smithville, Texas 78957; Rev, Alton T. Edwards, (512) 237-5903

**J's Action RC**, 7777 1/2 Spencer Hwy., Pasadena, Texas 77505; Jon Kurz, 281-476-4661; email: Joeifash@netscape.net; web: n/a

**Hobby Center Race Track**, 18177 Gulf Frwy., Houston, Texas 77598; Issac Ben-Ezra, 281-488-10YS; email: Hobbycenter@issacsmodels.com; web: www.hobbycenter.cc

**T&M Raceway R/C Drag Racing**, 4150 Beltline Rd., Addison, Texas 75244, (972) 478-2399; email: ghostvan@msn.com; web: www.tmraceway.com

**Thompsons RC Raceway**, 520 E. Laurel, Lufkin, Texas 75901; Mark Thompson, (936) 637-0093



**T&T R/C Cars**, 3420 Avenue K, Ste. 154, Plano, Texas 75023; Joe Sullivan, (972) 633-2470

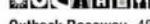


## UTAH

**Intermountain R/C Raceway**, 8481 W. 2700 S., Magna, Utah 84044; David Mott, (801) 250-8303



**Vision Hobby**, 352 N. State St., Orem, Utah 84057; Ken Rice, (801) 226-6226



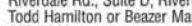
**Outback Raceway**, 481 North Wall Ave., Ogden, Utah 84404; Steve Brown or Beazer Martin, 801-726-3458; email: Steve@rmrcr.com or Beazer@bibbs.com; web: www.rmrcr.com or www.beazershobbies.com



**Payson R/C Raceway**, 955 S. Main, Payson, Utah 84651; Gus Wood, (801) 222-8677; email: www.b757brad@aol.com; web: None



**Hobbie Stop Raceway**, 1150 West Riverdale Rd., Suite D, Riverdale, Utah; Todd Hamilton or Beazer Martin, (801) 622-0841



## VERMONT

**Bradford R/C Racing**, Main St., Bradford, Vermont 05033; Seth Bean, (802) 222-9674



**Stoughton Pond Raceway**, Stoughton Pond Rd., Perkinsville, Vermont 05151; Rick Adams, (802) 263-9321



**Barre Town R/C Club**, South Main Rte 14 Wall St. Complex, Barre, Vermont 05641; Peter Perreault, 802-476-9458; email: barrerc@AOL.COM; web: home-town.aol.com/barrerc/home.html



**North Haverhill R/C Racing**, 111 Golf Links Rd., Wells River, Vermont 05081; Todd White, (802) 757-2579



## VIRGINIA

**Linville Hobbies Raceway**, 7065 Wengers Mill Road, Linville, Virginia 22834; Jerry Shenk, (540)833-2222; email: linvillehobbies@junio.com; web: www.linvillehobbies.com



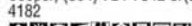
**Brad's Hobbies**, 1105 Greenville Ave., Staunton, Virginia 24401; Brad, (540) 885-3642



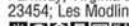
**Brown Brothers Hobbies**, 17297 Jeff Davis Hwy., Dumfries, Virginia 22026; Joe or Bob Brown, (703) 221-5746; email: joeonenut@erols.com; web: www.bb.hobbies.com



**Cooper's R/C Race Center**, 4000 Sago Rd., Chatham, Virginia 24531; Norris Cooper, (804) 724-7342 or (804) 724-4182



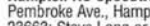
**DRCW Raceway**, 2200 Commerce Parkway, Virginia Beach, Virginia 23454; Les Modlin, (757) 340-6681



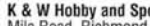
**Gloucester Scale Hobbies**, 2352 George Washington Memorial Highway, Hayes, Virginia 23072; Rob Thein, (804) 642-3484



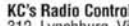
**Hampton RC Speedway**, 1920 E. Pembroke Ave., Hampton, Virginia 23663; Steve Long or Mickey Kern, (757) 723-1884



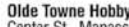
**K & W Hobby and Sports**, 5186 Nine Mile Road, Richmond, Virginia 23223; Ross Martin, (804) 737-3904



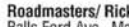
**KC's Radio Control & Repair**, Rt. 4, Box 312, Lynchburg, Virginia 24503; Curtis or Kim Wright, (804) 384-8596



**Olde Towne Hobby Shoppe**, 9105 Center St., Manassas, Virginia 22110; Arnie Levine, (703) 369-1197



**Roadmasters/ Rick's Hobbies**, 12201 Balls Ford Ave., Manassas, Virginia 22110; Rick, (703) 330-6833



**Shamroc Raceway**, 106 Cheviot Place, Stephens City, Virginia 22655; Scott Janow, (540) 869-3551



**Thunder Road RC Racing**, P.O. Box 1022, Troy, Virginia 22974-1022; James Palmer, (804) 589-8174



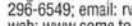
**The Tiltyard**, 6994 Tiltyard Drive, Dayton, Virginia 22821, (540) 828-3476; email: tiltyard@erica.net; web: www.tiltyard.com



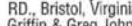
**Trainlano R/C Racing**, 5661 Shoulders Hill Rd., Suffolk, Virginia 23435; Frank Stevens, (757) 488-5454



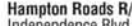
**Thunder Road RC Speedway**, 18079 James Madison Hwy, Gordonsville, Virginia 22947; Robert Bingle, (804) 296-6549; email: rwb3y@virginia.edu; web: www.come.to/thunderroad



**Griffin Hobby & Raceway**, 1051 Island Rd., Bristol, Virginia 24201; Danny Griffin & Greg Johnson, (540) 466-3652; email: grgjohn@yahoo.com



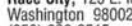
**Hampton Roads R/C Drag Club**, 1167 Independence Blvd, Virginia Beach, Virginia 23452; Garry Nelson, 757-399-8645; email: Garry@gsdragracing.com; web: www.HRRCC.com



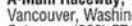
**Mountwood Raceway**, RR 2 Box 56, Waverly, West Virginia 26184; Ryan Taylor, (304) 295-3217; email: ryan@ovrrcc.com; web: www.ovrrcc.com



**Philippi Superspeedway**, Rt. 1, Box 69A, Philippi, West Virginia 26416; Eric, (304) 457-1438; email: Firehawk119@cs.com



**Quiet Dell Raceway**, Rt. 6, Box 1616, Fairmont, West Virginia 26554; Darris, (304) 366-1441; email: Tateracing@aol.com



## WASHINGTON

**Race City**, 125 E. Main St., Auburn, Washington 98002; Craig Haslebach, (253) 939-2515



**A-Main Raceway**, 14011 NE 3rd Ct., Vancouver, Washington 98685; Monty Coleman, (360) 571-8404



**Burien Toyota R/C**, 15025 1st Ave., Seattle, Washington 98148; Ray Meek, (800) 654-6456



**Cedardale Raceway**, 1673 Cedardale Road, Mount Vernon, Washington 98273; Joe Madonia, (360) 659-0072; email: getshell@halcyon.com



**Four Season R/C Racing**, 2941 Sleater Kinney Rd. NE, Olympia, Washington 98506; Gary and Sharon Brown, (360) 491-2430



**Spokane Indoor Raceway**, 6422 E. 2nd Ave., Spokane, Washington 99212; Dave Mapston, (509) 534-RACE



**Tacoma R/C Raceway**, 6305 6th Ave., Tacoma, Washington 98406; Scott Brown, (253) 565-1935



**Ultimate R/C Raceway**, 907 Cole St. #3, Enumclaw, Washington 98022; Dan Daugherty, (360) 802-2388



**West Coast Hobby & Raceway**, 2239 Stevens Drive, Richland, Washington 99352; Darren Shank, (509) 375-4995



**Zep's Hobbies & Raceway**, 530 Interlake, Moses Lake, Washington 98837; Steve Ralph, (509) 765-8191



**Redmond Hobbies Raceway**, 16290 Redmond Way, Redmond, Washington 98052; Stan Ng, (425) 885-3639; email: info@redmondhobbies.com; web: redmondhobbies.com



**Rain City RC Raceway**, 3616 South Road, Suite A-3 (V-5 Industrial Park), Mukilteo, Washington 98021; Pete or Debbie Cartwright, 425 438-2454; email: info@raincityraceway.com; web: www.raincityraceway.com



**Schmidt's Auto Parts**, 10305 Smoke Point Blvd., Marysville, Washington 98271; Jon Faila, (360) 653-8838



**Paradise Raceway and Hobbies**, 3502 East Wellsley, Spokane, Washington 99207; Mark, 509-483-1843; email: paradisc@hotlmail.com; web: www.paradise-sellers.com/paradise



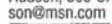
**Happy Go Round**, 521 Milrose Dr., Milwaukee, Wisconsin 53093; Bill Regisler, (414)659-9328; email: Tracksidhobbies@hotmail.com; web: www.TracksidHobbies.org



**The Shorthall Raceway**, 5900 Hwy 93, Eau Claire, Wisconsin 54701; Scott Schoettie, 715-834-0203; email: short-half@yahoo.com



**Hank Perry Raceway**, 1901 Sullivan Rd., Spokane, Washington 99023; Hal Hudson, 509-879-3503; email: halshudson@msn.com



**Fantasy World Raceway**, 7901 S. Hosmer, Tacoma, Washington 98408; Dave Kleinman, (253) 473-6223; web: www.fantasyworldhobbies.com



## WEST VIRGINIA

**Burr-Fab Raceway**, 90 Davis St., West Union, West Virginia 26456; Mark Travis, (304) 873-2487



**Fulton's R/C Raceway**, 2646 Chapline St., Wheeling, West Virginia 26003; James Fulton, (304) 233-5355



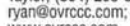
**Left Turn Hobbies**, 100 Saco Ln. (by Post Office), Glen White, West Virginia 25849; Glen White, (304) 255-9390



**Race Zone**, Hopewell Rd., Rt. 8, Box 343A, Fairmont, West Virginia 26554; Joe Clutter, (304) 368-1000



**Mountwood Raceway**, RR 2 Box 56, Waverly, West Virginia 26184; Ryan Taylor, (304) 295-3217; email: ryan@ovrrcc.com; web: www.ovrrcc.com



**Philippi Superspeedway**, Rt. 1, Box 69A, Philippi, West Virginia 26416; Eric, (304) 457-1438; email: Firehawk119@cs.com



**Quiet Dell Raceway**, Rt. 6, Box 1616, Fairmont, West Virginia 26554; Darris, (304) 366-1441; email: Tateracing@aol.com



## WISCONSIN

**MARCCA Raceways**, 526 S. Monroe St., Monticello, Wisconsin 53570, (608) 243-1778



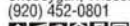
**ABC R/C Inc & Raceway**, 244 W. Main St., Waukesha, Wisconsin 53186; Dick Mathiesen, (414) 542-1245



**Gary's Hobby Center**, 3701 Durand Ave., Racine, Wisconsin 53403; Bill Phalen, (414) 554-8884



**Hobbytown USA - Revolution**, Memorial Mall, 3347 Kohler Memorial Drive, #D2, Sheboygan, Wisconsin 53081; Kenry, (920) 452-0801



**Mid-West Tri-Clone**, 3745 Shuster, West Bend, Wisconsin 53095; Tom Holz, (262) 334-0487, 334-0429; email: mwtc@hnet.com; web: www.triclone.com



**Pro-Star Racing**, 726 Pine St., Green Bay, Wisconsin 54301; Chuck or Terry, (920) 494-1233 or (920) 469-5566



**Revolution Raceway**, Memorial Mall, 3347 Kohler Memorial Dr., #D2, Sheboygan, Wisconsin 53081, (920) 452-0801 or (800) 594-9420



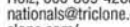
**S&N's Trackside Hobbies and Raceway**, 6045 N. Green Bay Ave., Milwaukee, Wisconsin 53209; Scott Ernst, (414) 351-1910



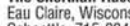
**Tri-Clone Off-Road**, 3745 Schuster Dr., West Bend, Wisconsin 53090; Tom Holz, 800-309-4263; email: nationals@triclone.com; web: www.triclone.com



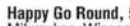
**The Shorthall Raceway**, 5900 Hwy 93, Eau Claire, Wisconsin 54701; Scott Schoettie, 715-834-0203; email: short-half@yahoo.com



**Happy Go Round**, 521 Milrose Dr., Milwaukee, Wisconsin 53093; Bill Regisler, (414)659-9328; email: Tracksidhobbies@hotmail.com; web: www.TracksidHobbies.org



**Wynnum R/C Club**, 4920 Hwy 70W, Eagle River, Wisconsin 54521; Randy Stys, (715) 479-2541



**Collectable Creations Off-Road Oval Track**, 1790 Dell Range Blvd., Cheyenne, Wyoming 82009; Phil Severson, (307) 632-2156



**Club A. Velez Sarsfield**, Av. J.B. Justo 9000, C.P. 1408, Buenos Aires; Jorge Herrero, 54-01-658-5851



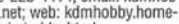
**Circuit M.R. Models**, Av. Monpre 1402, Capital Federal, Pque. San Martin - Cmo. del Buen Ayre y Pte. Debenediti, Buenos Aires 1428; Maximiliano Roballos, 54 11 4557 1000, fax 4780 1677; email: info@kyosho-argentina.com.ar; web: www.kyosho-argentina.com.ar



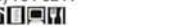
**Circito R/C Lobos**, Alvear y Quemes, Lobos, Buenos Aires 7240; Rupert Bruce, 54-02227-422905; email: rclobos@yahoo.com; web: www.rclobos.8m.com



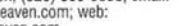
**KOM Raceway**, 711 East Spruce, Abbottsford, Wisconsin 54405; Kevin Michlig, 715-223-4414; email: kdmhob@pcpro.net; web: kdmhobby.home-stead.com/kdmhobby.html



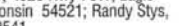
**Best's Hobbies**, 2700 West College Ave., Appleton, Wisconsin 54914; Peggy, (820) 734-5244



**Dirt Heaven Hobby & Raceway**, 6028A County Rd. K, New Franken, Wisconsin 54229; Aaron, (920) 866-9096; email: sales@dirtheaven.com; web: www.dirtheaven.com



**R.J.S./R.C.**, 4920 Hwy 70W, Eagle River, Wisconsin 54521; Randy Stys, (715) 479-2541



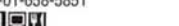
**Collectable Creations Off-Road Oval Track**, 1790 Dell Range Blvd., Cheyenne, Wyoming 82009; Phil Severson, (307) 632-2156



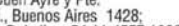
**Club A. Velez Sarsfield**, Av. J.B. Justo 9000, C.P. 1408, Buenos Aires; Jorge Herrero, 54-01-658-5851



**Circuit M.R. Models**, Av. Monpre 1402, Capital Federal, Pque. San Martin - Cmo. del Buen Ayre y Pte. Debenediti, Buenos Aires 1428; Maximiliano Roballos, 54 11 4557 1000, fax 4780 1677; email: info@kyosho-argentina.com.ar; web: www.kyosho-argentina.com.ar



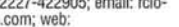
**Circito R/C Lobos**, Alvear y Quemes, Lobos, Buenos Aires 7240; Rupert Bruce, 54-02227-422905; email: rclobos@yahoo.com; web: www.rclobos.8m.com



**WYOMING**



**Collectable Creations Off-Road Oval Track**, 1790 Dell Range Blvd., Cheyenne, Wyoming 82009; Phil Severson, (307) 632-2156



**Club A. Velez Sarsfield**, Av. J.B. Justo 9000, C.P. 1408, Buenos Aires; Jorge Herrero, 54-01-658-5851



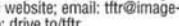
**Circuit M.R. Models**, Av. Monpre 1402, Capital Federal, Pque. San Martin - Cmo. del Buen Ayre y Pte. Debenediti, Buenos Aires 1428; Maximiliano Roballos, 54 11 4557 1000, fax 4780 1677; email: info@kyosho-argentina.com.ar; web: www.kyosho-argentina.com.ar



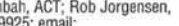
**Circito R/C Lobos**, Alvear y Quemes, Lobos, Buenos Aires 7240; Rupert Bruce, 54-02227-422905; email: rclobos@yahoo.com; web: www.rclobos.8m.com



**AUSTRIA**



**R.C. Speedway**, 229 King Street, Newcastle, New South Wales 2300; Andrew Dillon-Smith, 02-49265966



**Carine R/C Model Car Club, Inc.**, Penistone Reserve, Greenwood, Western Australia; David Werner, 61-418922966



**TFTR - Templestowe Flat Track Racers**, Corner of Porter St. and Williamsons Rd., Templestowe, Victoria 3106; Nigel George, see website; email: tfr@imagefile.net; web: drive.to/tfr

</



**Electric Car Club R/C Santos**, Av. Bernardino de Campos, 227, Santos, SP 11065-001; Estevam or Arnaldo, 55-013-232-2536



**Hobby Center**, SOS.210 Bl.H, Apt. 204, Brasília, DF 70.273, 061-242-0488



**Hobby Planet Racing Club**, Rod Dom Pedro 1, KM 1315, Campinas, SP 13091901; Daniel, Helio, Luciano, 019 258 2768



**Jungle Drive**, Rua Alberto Maranhão, No. 219 Icha do Gov. Rio de Janeiro, PB 21940-490; Paulo Brito, (021) 396-0851 or (021) 393-7449



**Off Roaders**, Av. Guillerme Dummont Villars, 317, Sao Paulo, CEP 05640; Waldir Ielpo, (055) 011-260-5628; fax (055) 011-831-4931



**Way of R/C Off-Road Cerrado**, Rua Paraíba 1323, 1st floor, Belo Horizonte, Belo Horizonte, Minas Gerais; Claudio T. Corrêa, (031) 227-6111, fax (031) 227-6869



## CANADA

**Club Auto Teleguides**, 1750 Mlee Interprovinc, C.P. 35, Pointe-Fortune, Quebec JOPINO; Jacques St. Alevis, (514) 451-0078



**Club Avall**, 244 Jules-Richard, Deauville, Quebec JIN 3; Daniel Vanier, (819) 864-6262



**Club RCSI**, 44 Rue Holliday, Sept-Îles, Quebec G4R; Sylvio Gerard, (418) 968-6575



**CRCCC**, Box 309, Clinton, Ontario NOM 1L0; Eric Russell, (519) 482-9429



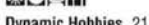
**CTG**, 450 Chemin de la Grand Ligne, Granby, Quebec, (514) 358-4419



**CTL**, 495 Industriel, Longueuil, Quebec, (514) 358-4419



**Dustkickers R/C Raceway**, 1785 Cypress Rd., Quesnel, British Columbia V2J 4B1; Darrell Dinsdale, (250) 747-2680



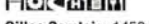
**Dynamic Hobbies**, 21 Concourse Gate, Unit 6, Nepean, Ontario K2E7S4; Clark Freeman, (613) 225-9634



**East Coast Model Center Raceway**, 13 Glen Stewart Dr., Ste 1, Southport, Prince Edward Island C1A 8X9; Gary Stephen, (902) 569-3262



**Fast-Trax Speedway**, RR 4, Trenton, Ontario; Russ McPeak, (613) 394-6411



**Gilles Comtois**, 1458, Boul. Lafleche, Baie-Comeau, Quebec G5C 1E1, (418) 295-1830



**Hobby 2000**, 75 St.-Jean-Baptiste, Suite 140, Chateauguay, Quebec J6J 3H6; Hugues-Andre Meloche, (450) 698-2000



**Honda House Motor Speedway**, 384 Richmond St., Chatham, Ontario N7M 1P9; John Elliot, (519) 354-5530



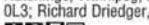
**J-T International Raceway**, 127 Milligan Lane, Napanee, Ontario K7R 8A1; N. O'Neill, (613) 354-0099



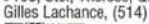
**Leading Edge R/C Speedway**, 731 Gardiners Rd., Kingston, Ontario K7M 3Y5; Mike and Tony Daicir, (613) 389-4878



**Mid-Canada R/C Speedway**, 216 Hutchings, Winnipeg, Manitoba R3H 0L3; Richard Driedger, (204) 339-6566



**Miniatures & Passions**, 204 St. Charles, #103, Ste., Therese, Quebec J7E 2 B4; Gilles Lachance, (514) 979-7989



**Prince George Radio Controlled Car Club**, 202 Explorer Cres., Prince George, British Columbia Y2M 5R8; Doug Waller, (604) 561-0035



**Quintrax Speedway**, 610 Dundas St. East, Belleville, Ontario K7K 2M1, (613) 962-1414; fax (613) 962-7306



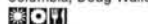
**Randy Shantz Raceway**, 1015 W. 14th St., North Vancouver, British Columbia; Steve Mulhall, (604) 945-3888



**R/C Champ Raceway**, 670 Progress Ave., Rear Unit #13-16, Scarborough, Ontario M1H 3A4; Ben, Matthew or Louie, (416) 289-8717



**Recreation R/C Raceway**, Hwy 16 and Ferry Ave., Prince George, British Columbia; Doug Waller, (604) 561-0035



**Ronbo's R/C Racing**, RR 1 Glen Walter, Cornwall, Ontario K6H 3G4; Ron Giroux, (613) 936-0176



**Rousillon Hobby Track**, 177-D St-Jean Baptiste, Chateauguay, Quebec J6K 3B4, (514) 698-2151



**Shadetree Raceway**, R.R. #4, 22566 Stage Rd., Thamesville, Ontario; Darrin Charbonneau, (519) 692-5211



**Snye Wreck RC**, RR#1, St. Regis, Quebec; Aimee Mitchell



**South Okanagan Roadhogs**, Skha Lake Rd., Penticton, British Columbia; Willie Lemm, (604) 492-5698



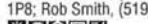
**Steeltown Speedway**, 3580 Kirk Road West, Binbrook, Ontario LOR 1C0; Paul Snyder, (905) 227-7508



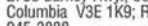
**Sudbury Ontario Auto Racing**, 3159 Daniel Ave., Val Caron, Ontario P3E 1E6; Brad Peacock, 705-897-1435 (Brad); email: bradrendakyle@sympatico.ca



**Thunder Alley Raceway**, Lambton Mall, 1380 London Rd., Sarnia, Ontario N7S 1P8; Rob Smith, (519) 882-3361



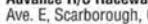
**Vancouver R/C Road Racers**, #100-2733 Barney Hwy., Coquitlam, British Columbia V3E 1K9; Roger Brown, (604) 945-3888



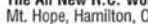
**Action Wheelz**, 462 Turcotte, Vanier, Quebec G1M 1R6; Regent Tardif, (418) 527-5756



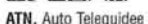
**Advance R/C Raceway**, 4181 Sheppard Ave. E., Scarborough, Ontario M1S 1T3; Albert Lau, (416) 321-8377



**The All New R.C. World**, 2633 Hwy. #6, Mt. Hope, Hamilton, Ontario LOR 1W0; Dave, Larry or Brian, (905) 765-2301 or (905) 333-3297



**ATN**, Auto Teleguides Nicolet, 2000 Rue Paul Hubert, Saint-Jean-Baptiste-de-Nicolet, Quebec J3T 1E5; Louis Durand, (819) 293-6097



**Auto Sprint**, 6065 Des Grands Prairies, St. Leonard, Quebec H3G 2R6; David Kalayjian, (514) 287-3503



**Blew Bye You Raceway**, 134 Dike Rd., Chilliwack, British Columbia V2P 5B1, (604) 792-8978



**Circuit J.C.**, 1283 Chemin, St. Philippe, St. Polycarpe, Quebec J0P 1X0; Jean Castellan, (514) 265-3675



**Circuit Pepsi**, Centre de Location, 37 duRoi, Sorel, Quebec, (514) 746-8828



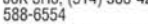
**Circuit Plessis**, 260 Rang 9 Ouest, Plessisville, Quebec G6L-2Y2, (819) 362-3743



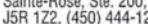
**Circuit R/C Pro**, 1500 Chemin Sullivan, Val'd'Or, Quebec J9P 1M1; R/C Modeler Plus, (819) 874-3918



**Circuit Teleguide St. Roch**, 363-8 St. Charles, St. Roch de L'achigan, Quebec J0K 3H0, (514) 588-4254, fax (514) 588-6554



**Circuit Teleguide Grand Prix II**, 701, Sainte-Rose, Ste. 200, Laprairie, Quebec J5R 1Z2, (450) 444-1286



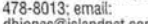
**PLRC (Hobby Hobby Inc.)**, 128 Queen St. South, Mississauga, Ontario L5M 1K8; Tom bakonyi, 905-858-7978; email: info@hobbyhobby.com; web: www.hobbyhobby.com



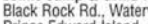
**IROCC**, 3005 Cressida, Victoria, British Columbia V9B 5W9; Daryl Jones, (250) 478-8013; email: djoness@islandnet.com



**Johns Jump & Grind R/C Track**, 1975 Black Rock Rd., Waterville, Nova Scotia, Prince Edward Island B0P 1V0; John Egan, 902-538-9920; email: john.egan@ns.sympatico.ca



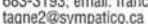
**Club Radio Contrôle de la Capitale**, 30 rue Général Vanier, Quebec, Quebec G1N 3S1; François Lamontagne, (418) 683-3193; email: francois.lamontagne2@sympatico.ca



**Kays Hobbies R/C Raceway**, 36 McGivern St. Box 162, Moorefield, Ontario N0G 2K0; Doug Kay, 519-638-9990; email: dougk@golden.net; web: www.kayshobbies.place.ca



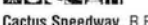
**Cactus Speedway**, R.R. 3, Ruthven, Ontario N0P 2G0; Terry Torelli, (519) 735-7122; email: osthunder@sympatico.ca; web: www.mnsi.net/~glenn/sparc.htm



**Battlefield R/C Raceway**, County Rd 18, Cobourg, Ontario K9A 2G3; Tony Hopcraft, (905)373-8373; email: tony-hopcraft@yahoo.com



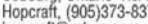
**Mid-Canada R/C Auto Racing**, Hwy. 1 East, Winnipeg, Manitoba R2J 4E6; Jason McBride, 204-231-3324; email: hjmck@escape.ca; web: www.geocities.com/midcanadarcau-toracing



**R/C Fanatic**, 125 Renaud, Quebec; Marc Page, (418)265-2678; email: clubrcfanatic@hotmail.com; web: www.rcfanatic.50megs.com



**Club Radio Control de la Capitale**, 30 Rue General Vanier, Quebec; Francois Lamontagne, (418) 683-3193; email: francois.lamontagne2@sympatico.ca



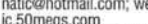
**Interior R/C Raceway**, 34-1605 Summit Dr., Kamloops, BC V2E 2A5; Martin Vannieuwenhuizen, (604) 374-1268 or (604) 374-8458



**R.C. G.E.A.R.S.**, 87 Castlebrook Way NE, Calgary, Alberta T3J 2A7; Paul Parks, (403) 285-0170



**South Muskoka RC Track & Mini Putt**, 8903 Hwy. 11, Orillia, Ontario L3V 6H3; Justin, (705) 329-0397



## COLOMBIA

**Garoso Raceway**, Avenida Libertad-dores con Diagonal Gran Colombia, Cucuta; Gabriel Rodriguez, 975-751892



## CYPRUS

**Racing Model Club**, Kennedy Ave. N. 42, Nicosia; Andrea Sotiriou, 493186; fax 493229



**Brondby Motor Club**, Roskildevej 460, Brondby 2605; Soren Boy Holst, 45-36-472-462



**Holstebro R/C Buggy Club**, Mozartsvej 7500, Holstebro 2600; Michael Brusholt, 45-97-412-734



**Klub 144 Raceway**, Bagsvaerdvej 144A, Lyngby 2800; Henrik Carstens, 45-42-88-3691



**Rainbow Raceway**, Eriksvej, 9 Glostrup, Copenhagen 2600; P. Christiansen, 45-52-848-504



**Thor Minirace Odense**, Sohusevej 255, Alsio, Odense; Ulrich Rasmussen, 45-65-303-707



## DOMINICAN REPUBLIC

**Adoca R/C Speedway**, Feria Ganadera, Santo Domingo, (809) 220-5266



**La Barranquita R/C International Speedway**, TrackAddress, Santiago, (809) 582-2303



## ECUADOR

**Hobby Centro A.C.R.O. Club**, Via a Turi Km O.S., Cuenca; Teddy Jaramillo, 593-7-831-289; fax 593-7-817082



## ENGLAND

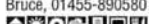
**Chessington Radio Car Club**, Riverhill Estate, Worcester Park Rd., Worcester Park, Surrey; Ian Spiller, 0252-20657



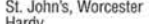
**Hampshire Racing Center**, Viabes Craft Center, Basingstoke, Hampshire; Tony Eudola, 44-1276-61402



**Hinckley RC**, Three Pots Inn, A5 Watling St., Hinckley, Leicestershire; Bruce, 01455-890580



**Worcester Model Car Club**, Christopher Whitehead High School, Bromwich Rd., St. John's, Worcester WR2 6Q9; Mr. Hardy



**Snetterton Market Model Car Club**, The Snetterton Market, Norwich, Hampshire NR16 2JU; Lee Shore, 01760 724857; email: kekezza@tmail.net; web: www.wheelspins.co.uk



## FRANCE

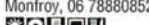
**Auto Electron**, 35, rue B. de Ventadour, Limoges 87000; M. Boudoul, 55 062763



**Crame Roncq**, 64 Rue Du Becquerel, Mons el Baroeu; Michael Hondekyn, 33-20042755



**CSRM**, 17 Grande Rue Ave., de Saint-Rambert, Lyon 69009; Pierre-Yves Monfroy, 06 78880852



**Lorgies Bolides**, Rue Beau-Riuz, Lorgies 62840; Hourdequin Sabine



**Auto Model Club de l'ouest**, 45 rue de Menez, Lojerhet 29470; Peuziat Michel, 98071764



## GERMANY

**Mini Car Club Dortmund**, Kortschstr. 4, Dortmund 4600; Roland Schwan, 0231-213609



**MC Köln**, Bottgerstr, Worringen 50769; Ralf Habel, 02733-477493



**Oberhausen-Altstadt**, Am Fserderturm, Oberhausen 46099; Josef Holl, 0208-403676



**Panik Raceway**, Teutonen Str. 5, Troisdorf 53844; Guido Kraft, 0224-400259



**Dreykorn Raceway**, Heuchlinger-Hauptstr. 43, Lauf 91207; Hermann Hensel, 09123-81457



**MAC Zweibruecken**, Mauerstr. 19, Hueffler 66909; Matthew Bailey, 011-49-6384-1388; email: matthew\_w\_bailey@hotmail.com; web: www.geocities.com/matthew\_w\_bailey



## GUAM

**R/C International Raceway**, P.O. Box GK, Agaña; Robert (Buddy) Simpkins, (671) 477-3207



## HONDURAS

**Autodromo Accion**, Quinta Santa Maria, San Pedro Sula; Colonia Rivera Hernandez; Eduardo Hondal, (504) 52-2061



## HONG KONG

**Kingsville Buggy Arena**, Wong Chuk Yeung Village, Shatin; Pak Yeung, (852) 607-0828



## INDONESIA



## LEBANON

**Wild Willy RCC**, Oscar St-Jal Eddie, Beirut, 0961-4-403751

## MALAYSIA

**Titilwansa Raceway**, Lot 128, Ampang Park, Shopping Centre, Kuala Lumpur; R.A.C.E. Sdn Bhd., 03-2614496

**Jump Square Arena**, Al21.SG, Buloh N/V, 47000, SG, Buloh, Selanhor; Thomson Chong, (603) 656-2513

**ACME SPEEDWAY**, 35, Konkos 4, Level 4, Komtar, Georgetown, Penang, PB 10000; MOEY CHEE CHEONG, 604-2613175 & 6012-4189388; email: s.jamm@hotmail.com

## MEXICO

**Alces Off Road**, Lopez Mateos y Rayod S/N, Ensenada, BC 22830; Jorge Bustamante, 667-6-1476, 61477, 86729

**La Hielera**, Prol Corregidora Nte 350, Queretaro, QRO 76160; Jorge Morelos Rabell, 42-12-15-25

**Tony's Track**, Obregon 364 Sur, Culic-n, Sinaloa; Guillermo Prieto, 67-165708-168141

**R/C Racing Club**, Obsidiana #2900, Zapopan, Jalisco 44560; Fernando Hernandez, 3-616-73-47

**Pista Casino**, Hotel Casino de la Selva, Cuernavaca, Morelos 16507; Luis Duhart, 73-19-12-38

**Baja Jr.**, H. Valdez 151 Pte. Y Gmo. Prieto, Los Mochis, Sinaloa 81200; Memo Asencio, Gaby Macias, 681-20276; fax 681-26430

**Hobby Model's Raceway**, Blvd. Garcia de Leon, 1555, Morelia, Michoacan 58260, 431-5-01-22

**Hobby's Formula**, Au observatorio 457, DF 01120, 905-502-3620

**Hobby Centro**, 12 De Diciembre No. 3070-A, Guadalajara, JAL 45550; Alejandro Ortiz Del Toro, 36-21-46-28

**Cinamo Coca-Cola**, Ruiz Cortines 620 Col. Central de Carga, Guadalupe, Nuevo Leon 67120; Sergio Garza, 83- 35-70-09/79-32-33

**Club Kyosho de Automodelismo**, Deparino, Av. Pacifico 216 Coyoacan, Ajusco-Toluca, Delaware 04330; Ing. Jorge Perez Holder, 525- 544-08096; fax 525-544-7133

**Jaguar R/C Club**, Calz. Zavaleta 116, Puebla 72150; Denise or Chiro, 22-31-00-91, 22-33-00-94

**Micromotori Club**, Calle Villa Juarez S/N Arigola Santa Ana Tepetitlan, Jalisco, Jalisco 44640; Francisco Ortiz Sevilla, 52-36418672; email: tstmymr@hotmail.com

**NITRO RACERS**, CHULA VISTA, San Jose del Cabo / los cabos; FRANCO MEZA, (114) 1424422; email: tcstafte@prodigy.net.mx

## NETHERLANDS

**H.F.C.C. Hollandia**, De Werf 60, The Hague; G. de Jong, 031-070-3679820

**M.A.C. Vlymen**, Nieuwkuilseweg, Nieuwkuil; Arjan van de Graaf, 31-416-376298

**ERCE Eindhoven**, Oude Bosche baan, Eindhoven, ACT 5627In; Henk Fick, 040-2480607; email: info@erceracing.nl; web: www.erceracing.nl

## NEW ZEALAND

**Western District R/C Off-Road Car Club**, CNV Bancroft/Akatea Prive, Auckland; Chris, 09-838-5201

**Papakura Indoor R/C Car Club**, 25 Tainere Cres., Papakura, Auckland; Colin Perry, 09-298-4711

**Harewood Radio Control Car Club**, 550 Sawyers Arms Rd., Christ Church; Dean Johnson, 09-0- 3880 344

**Counties R/C Raceway**, Pukekohe Showgrounds, Station Rd., Pukekohe; R. Northcott, 09-23-86904

**Capital Model Racers**, Avalon, Lower Hutt; Roger Whitmarsh, 04-566-5714

## NORWAY

**Aurskog R/C Club**, Aursmoen, 1930, Aurskog; Tommy Gjeleseth, 47-63-86-21-61

**Dalen Raceway**, P.B. 728, 6401, Molde; Johnny Reitan, 94 64 52 95

**Store-Bailer Raceway**, 2750 Gran, 3/17/99 61330225; Ola Raastad

**Hadeland Raceway**, 2750 Gran, Gran; Dag Bakke-Nilsen, 61330405

**Quezon City Radio Car Club**, Quezon City Memorial Cir., Quezon City; Carl, Desthy, Emer or William, 338-6189; email: rcfun@qcrcc.8m.com; web: www.qcrcc.8m.com

**Philippine R/C Association**, B.F. Homes Paranaque, Manila; Ronald/Manny Villafior, 23-30-08

**Phillipine F1/Touring Club**, Super Mall I, EDSA, Quezon City 1156; Raymond Aguilar/Ron Villafior, 896-64-15/23-30-08

**Boyet R/C Hobby Shop**, Unit No. 10 Lucas Commercial Center, Marcos Hiway, Rizal; Jose Chua, 721-2555

## PORTUGAL

**Aero Clube da Madeira**, Rua do Castanheiro E-2, Funchal, Madeira, fax 091-221265

## SOUTH AFRICA

**Parow Radio Car Club**, Northern Sports Complex, Parow, Cape Province; Stirling Spengler, 021-945-4957

**Frantic Raceway**, Santam Plaza, Shop 16B, Welton; Wayne Roodt, 27-57-35-72849

**Gordons Bay R/C Club (GBRC)**, Andrew Norman Sports Centre, Gordons Bay, Cape Province; Andre Hollander, 024-512865

**Lowveld Radio Control Thunderdrome**, Lion's Club Kanyamazne Rd., Nelspruit, Eastern Transvaal; Martin Van Der Merwe, 01311-534-6415

**Phoenix Raceway**, 1 Tugela St., Stilfontein, Transvaal; Lionel Edwards, 018-4842863

**Pick 'n' Pay Model Car Club**, P.O. Box 11654, Klerksdorp 2570; H. Grobbs, (27) 18 46245421

**Pietersburg Model Racing**, Landros Marais St., Pietersburg, Northern Transvaal; Peter Van Vuuren, 0152- 293-0700

**R.C. Superbowl**, Elsberg Sports Grounds, Elsberg, Johannesburg; Karl Fawcett, 27119076145

**R.A.C.E. Off Road**, Cecil Payne Stadium, Maraisburg, Gauteng; Derrick Plank, 682-2173

**Rustenburg Off-Roaders**, Olympia Stadium, Rustenburg, Northwest Province; Jan Van Vollenhoven, 0142-24-846

**Pretoria Off Road R/C Club**, Joost Bekker Caravan Park, Decemberville, Pretoria, Gauteng; Gert Swart, 012-377-3238

**Banana County R/C Racing Club**, P.O. Box 988, Margate 4275; Dennis Steenmans, 27-0-391-20975

**Norkem Raceway Club**, Norkem Park Mall, Kempton Park, Gauteng; Dan de Agrella, 2711-972-7011; email: craig@rmweb.co.za

**B.R.C.A. Boksburg Radio Car Association**, C/o Wannenburg & Dayan rd., Dayanglen, Boksburg; email: recycle@netactive.co.za; web: www.recycle.co.za

**Parow Radio Control Car Club**, Parow Sports Club, Parow, Cape Province 7530; Craig, +27 21 919-5859; email: craig@kingsley.co.za; web: www.speed-models.za.org

## SPAIN

**Outlaw-Ultima II**, Puerto Rico 27, Madrid 28016; Juan Vacas, 915197298

**Motoclub Castellon R.C.**, Rafalafena, S/N, 12004, Castellon; Octavio Traver, (34) 64 229705, (34) 64-237411

**Club Modelismo Catilla**, P.O. Box 491, Burgos 09080; A.J. Pereda, 34-47-240130

**A.D. Diabillos**, Morata de Jalon, 50.260, Zaragoza; Carlos Vicente de Vera, 34-76-605350

**ADAM**, Mina Flores de la Sienna, Madrid; Alvaro Sarabia, 01-7471113

**CRAEM**, La Elipa, Madrid; Pablo Llorente, 91-3865952

**Club Social Sevillana**, Crta. Pulianas S/N, Granada; Oscar Saenz, 958-275282

## SWEDEN

**Amalie Racetrack**, Hjort Vagen 14, Sollenbrunn 5-46632; Tage Johansson

**PROCAR Speedway**, Industrigatan 8, Veddigge 430 20; Lars Nordin, 46-0-340-38784; fax 46-0-340-38694

**Sollenbrunn Miniracing Club**, Enehagsgatan 63 SE-441 57, Allingsaas; Tage Johansson, 46-322-40944; email: tage.j@swipnet.se

**Staffanstorps Highway 1:8 Track**, Nummer Ettavagen 5, Vag 108 fran Staffanstorps, Staffanstorps 245 45; B'rje Petersson, 46 0 46-256832

**torvinge raceway**, piparegatan 8, rappestad, SP 59047 vikingstad; mats johansson, 013-808445; email: mats.j@swipnet.se; web: drive.to/miracel

## SWITZERLAND

**ERM Raceway**, 14 Ch de Tavernay, Grand-Saconnex 1218; M. Maurer, 19-41-22-798-9765

**JMRCV-Terrain du Levant**, Chemin ou Levant, Geneva 1290, fax 19 41 22 7790805

## THAILAND

**Hot Rod Raceway**, 6/3 Soi Soonvijai Phetburi Rd., Hueykwang Bangkok, Bangkok 10310; Mr. Vichai Vongphate, (662) 8602922-5

**Radio Control Speedway**, 16 Soi Suea-Yai-Uthit, Rajadapisek Rd., Chatujak, Bangkok 10900; Mr. Noppakao and Mr. Suteerapong S., (66-2) 930-0848; fax (66-2) 930-0849; email: rcs2000@cscoms.com

**Bangkok R/C Spa Huamark**, 164/1 Lardprao Soi 96, Wangthonglang Bangkok, Bangkok 10310; Mr. S. Sanghavi, 662-931-8390; fax 662-587-1186

**Hobbica Circuit**, 83 Moo 13, Petchakasem Rd., Pong Maduea, Maung, Thailand 73000; Mr. Supakiet Thuvachardenpanich, 66-34-258808; email: hobbica@yahoo.com

## TURKEY

**B&B OTO G.ven Raceway**, Gaziosmanpasa Sokak Kadi'ky, Goztepe Parki, Istanbul, 0216-4186118, or 0216-3490742

**BASKET OTOPARK RACEWAY**, KADIKOY POST. ARKASI KAT OTOPARKI TERASI KADIKOY, ISTANBUL, ACT 81190; KAN CIFTCI, +90 (216) 3486332 +90 (532) 3558626; email: taneri@superonline.com

## ATTENTION TRACK OWNERS!

Have your track listed in  
RC Car Action's Track  
Directory today! **It's free!**

Enter your track information on line at  
**www.rccaraction.com/info/  
/track\_directory\_form.asp**

or fill in this form and mail to:  
Track Directory  
Radio Control Car Action  
100 East Ridge  
Ridgefield, CT 06877-4606 USA

Track Name

Contact

Country

Address

City

State

Zip

Phone no. (required)

email

website

Check all that apply

- |                                   |                                   |                                    |
|-----------------------------------|-----------------------------------|------------------------------------|
| <input type="checkbox"/> Indoor   | <input type="checkbox"/> Concrete | <input type="checkbox"/> Automatic |
| <input type="checkbox"/> Outdoor  | <input type="checkbox"/> Asphalt  | <input type="checkbox"/> lap-      |
| <input type="checkbox"/> Off-road | <input type="checkbox"/> On-site  | <input type="checkbox"/> counting  |
| <input type="checkbox"/> Oval     | <input type="checkbox"/> hobby    | <input type="checkbox"/> Food      |
| <input type="checkbox"/> Dirt     | <input type="checkbox"/> shop     | <input type="checkbox"/> available |
| <input type="checkbox"/> Carpet   | <input type="checkbox"/> AC power |                                    |





**1/10 SCALE** [www.NewEraModels.com](http://www.NewEraModels.com)  
**New Era Models P.O. Box 7378 Nashua, NH 03060 603-888-4453**  
**DEALER INQUIRIES INVITED**



**"CLOD" Upgrades**

|   |         |
|---|---------|
| MCT201 Standard 4 Link Suspension           | \$69.95 |
| MCT202 Long 4 Link Suspension               | \$79.95 |
| MCT203 Upper 4 Link Mount                   | \$19.95 |
| MCT204 Steering Servo Adp. Up Front         | \$24.50 |
| MCT205 Rear Steering Eliminator             | \$24.50 |
| MCT207 Heavy Duty Steering Rods             | \$28.95 |
| MCT208 Rear Sway Bar                        | \$28.95 |
| MCT301 Front Bumper                         | \$28.95 |
| MCT401R Shocks w/ Reservoir (SALR) \$24.50  |         |
| MCT402 Steering Kit 2x piece (SALR) \$24.50 |         |
| MCT403 Right Angle Body Mounts (set) \$3.95 |         |

**"CLOD" Options**

|                                     |         |
|-------------------------------------|---------|
| MCT400 Cardholder Kit (no Bearings) | \$85.95 |
| MCT421 Cardholder Kit w/ Bearings   | \$89.95 |
| MCT422 Kyosho Wheel Adp. (4)        | \$48.50 |
| MCT423 New Era Mashie Tires (pr.)   | \$26.50 |

**HOT HOT HOT**

|   |          |
|---|----------|
| MCT103 "JUD" Chassis Only                 | \$229.95 |
| USA101 Complete Upper Chassis             | \$129.95 |
| OPN101 Chassis OPN M/Bumper               | \$169.95 |
| NTP151 1/8 Scale Top Fuel (for 21)        | \$509.95 |
| NPS152 1/8 Scale Pm Stock (for 21)        | \$509.95 |
| TRX102 Transaxle w/ Drive Shafts          | \$39.95  |
| NTP210 2-Speed w/ Gearbox w/ Drive Shafts | \$9.95   |



**1/10 SCALE UPGRADES**

**JUGGERNAUT UPGRADES**

|                         |         |
|-------------------------|---------|
| Stainless Steel Chassis | \$19.95 |
|-------------------------|---------|

**Call for Prices**

**ULTRA RACING CHASSIS**

|                      |          |
|----------------------|----------|
| AGT103 Ultra Chassis | \$79.50  |
| AGT106 for 21 Engine | \$109.50 |
| AGT101 Rear Brace    | \$21.95  |
| AGT102 Nose Tubes    | \$ 7.95  |

**T-MAXX CNC Aluminum Upgrades**

|  |         |
|--|---------|
| TRM334 Center Skid Plate \$15.00                                   |         |
| TRM335 Fit or Rear Shock Tower                                     | \$30.00 |
| TRM310 Roll Bar w/Brace \$39.50                                    |         |
| TRM403 4.7mm Chassis \$64.50                                       |         |
| TRM107 3.2mm Ex. Main Chassis                                      | \$39.50 |
| TRM321EX Rear Skid \$59.95   |         |
| TRM123 Engine Mount for Rear Exhaust .15 or .21 Pull Start \$35.00 |         |
| AGT301H-Torque Ripple Pipe Powder Coat Blue \$29.95                |         |
| AGT301V Pipe Vane Blue \$ 5.00                                     |         |
| TRM241 Header Blue \$19.95   |         |

**Light Upper Chassis Success for T-MAXX TRIATHLON \$99.95 Chassis only E-MAXX TRE101L \$69.95 Chassis only**



**1/4 SCALE** [www.NEMScaleCars.com](http://www.NEMScaleCars.com)  
**ROAD DRAG TRUCK**

**Kits Starting at \$995.00 Including Gasoline Engine**

# CALANDRA RACING CONCEPTS

**Winner and T.Q. of the 2001 Ft. Myers Winterchamps!**



**Texas Biggie! Winner + T.Q.**

**\* Fast-fill tank**  
**\* Dual sway bars**  
**\* Quick change wheels**  
**\* 2-speed Transmission**

**MOUNTED ON-ROAD GAS TIRES**

**FOR NEO AND SERPENT - EXOTIC RUBBER**

◆ 1/10th Fronts-\$14.59 Rears \$17.00 ◆  
 ◆ 1/8th Fronts - \$18.60 Rears \$22.60 ◆

Extra 5% off for 5 pack orders

## NEO

**NEO Touring cars and parts in stock!**

1/10 2wd Attack MX-2 - \$289.99  
 1/10 4wd Attack MX-4 - \$324.99  
 1/8 4wd Saber RX-4 - \$349.99

**Aluminum Parts for;**  
**T-MAXX + E-MAXX**  
**Associated TC3 + GT**  
**HPI TOURING CARS**  
**Check the Website!**  
**www.teamerc.com**

**CRC CARPET Knife V3.1 and 6-pack in stock!**

Dealer and distributor inquiries welcome.  
 Order Direct - We sell at "street prices" and accept major credit cards! But, try your dealer first!

**Team CRC is dist. by - Horizon + ERI**

227 West Dominick St.  
 Rome, NY 13440 - [www.teamerc.com](http://www.teamerc.com)  
 Tel+Fax 315-338-0867

## JT RACING PRODUCTS

A HISTORY OF PERFORMANCE AND QUALITY

ALUMINUM HOP-UPS CNC MACHINED FROM AIRCRAFT GRADE ALUMINUM. ALL PARTS HAVE HARDWARE INCLUDED. SEE OUR PARTS ONLINE AT [WWW.JTRACINGPRODUCTS.COM](http://WWW.JTRACINGPRODUCTS.COM)

**ASSOCIATED TC3/GT**  
**T-MAXX/E-MAXX**  
**KYOSHO GP/EP**  
**LOSI XXX/XX4**  
**HPI RS4/PRO 2**

HOBBY SHOPS CALL FOR LOW PRICING!!!  
 DISTRIBUTORS ALSO WELCOME

TOLL FREE ORDER 866-JT-RACIN TECH LINE 661-729-4156 FAX 661-729-4356

**"MONTHLY SPECIAL"**  
**!!! T-MAXX TO THE MAX !!!**  
 KIT #1 FRONT & REAR BULKHEADS, FRONT & REAR BUMPERS (5 STYLES). \$199.95  
 KIT #2 CHASSIS BRACE, SKID PLATE, MTR MNT HEATSINK, 4 SERVO MNT. \$124.95  
 KIT #3 FRONT & REAR SHOCK TOWER, FRONT & REAR BODY MNT & POST \$124.95  
 KIT #4 UPPER & LOWER ARMS (8) \$124.95

VISA  
 MC  
 DISCOVER

JT RACING PRODUCTS  
 42166 10TH ST. WEST "I"  
 LANCASTER, CA. 93534

## ADVERTISER INDEX

|                                      |   |
|--------------------------------------|---|
| AAA Model Supply/ Dillon Racing, 168 | M.D. Planes, 206-207                          |
| Ace Hardware Hobbies, 194-195        | M.I.P., 68-69                                 |
| Ace Hobby Distributors, 27           | Mach 1 Hobbies, 214                           |
| Acer Racing, 164                     | Megatech, 125                                 |
| Action Hobbies, 164                  | Model Rectifier Corp., 17                     |
| Airtronics, 108                      | Morgan Fuel, 179                              |
| America's Hobby Center, 199          | Mugen USA, 24-25                              |
| Associated Electronics, 32-33, 58-61 | Nagengast, 171                                |
| B&B Software, 214                    | National R/C, 172                             |
| Boca Bearing, 168                    | New Era Models, 106, 232                      |
| Bolink, 204                          | Nitro Subscription, 99                        |
| Bruckner Hobbies, 180-189            | Novak Electronics, 23                         |
| Calandra Racing, 232                 | Off Road Modified Nationals, 165              |
| Competition Electronics, 179         | Ofna Racing, 18-19, 30-31, 55, 57, 76-77, 131 |
| Conley Precision, 192                | Omni Models, 98                               |
| Corally USA, 47                      | O.S. Engines, 120                             |
| Deans, 210                           | Panther Tire, 117                             |
| Debbies RC World, Inc., 171          | Parma Intl., 173                              |
| Du-Bro, 214                          | Peak Performance, 175                         |
| Duratrax, 66-67, 145, 157, 163       | Precision Model Distributors Inc., 214        |
| Dynamite, 85                         | Progressive Suspension, 223                   |
| ERI Associates, 164                  | Pro-Line, C3, 6-9, 224, 234                   |
| FMA Direct, 75                       | RC Car Kings, 205                             |
| Futaba Corp. of America, 53, 134     | RD Logics, 107                                |
| General Silicones, 50-52             | RC Store, 212-213                             |
| Genka Trading Corp., 90-91           | Radtech Racing, 171                           |
| Global Hobbies, 121                  | Robin's Hobby Service, 164                    |
| H.P.I., 28-29, 78-79                 | Robinson Racing, 62-65                        |
| Hammad Ghuman, 44-45                 | RPM, 143                                      |
| Hitec RCD, 39, 126                   | Serpent, 160                                  |
| Hobby Etc., 215                      | Sheldon's Hobbies, 208-209                    |
| Hobbytown USA, 111                   | Stormer Hobbies, 200-203                      |
| Hobby People, 216-221                | SVM Racing Mfg., 193                          |
| Horizon Hobby Inc., 136-137          | Tamiya, C2, 14-15, 34, 36-37, 42-43, 211      |
| Hot Bodies, 164                      | Team Losi, 40-41, 162                         |
| Hudy Special Products, 97            | Team Orion, 135                               |
| JHM Aero, 171                        | The Hobby Store, 223                          |
| JR, 20-21                            | Tower Hobbies, 109, 146-150, 159              |
| JT Racing, 232                       | Track Directory, 225-231                      |
| Keyence, 174                         | Traxxas, 100-101, 118-119, 127                |
| Kimbrough, 111                       | Trinity, C4, 3-5, 10-13, 36-37, 141           |
| King Distribution, 86-87             | Varad, 178                                    |
| Kondo Kagaku Co. Ltd, 161            | XXX Main Racing, 223                          |
| Kyosho, 49, 88-89, 110, 169          | Yokomo USA, 151                               |
| LF Sign & Hobbies, 171               |   |
| LRP Electronic, 128, 170             |   |
| Lite Machines, 178                   |   |
| Lunsford Racing, 222                 |   |

**RADIO CONTROL CAR ACTION** (ISSN 0886-1609, USPS 001-087, IPM 1534580) is published monthly by Air Age Inc., 100 East Ridge, Ridgefield, CT 06877-4606, USA. Copyright 2001, all rights reserved. The contents of this publication may not be reproduced in whole or part without the consent of the copyright owner. Periodical postage permit paid at Ridgefield, CT, and additional mailing offices.

**SUBSCRIPTIONS. U.S. and Canada**, call (800) 877-5169; fax (815) 734-1223, or set your Web browser to <http://www.rcstore.com/subscribe.html>. U.S. \$34.95 (1 year), \$55.95 (2 years); Canada, \$49.95 (1 year), \$87.95 (2 years). Canadian prices include GST, reg. no. 13075 4872 RT. Elsewhere, call (815) 734-1116; fax (815) 734-1223; \$54.95 (1 year), \$95.95 (2 years). All foreign orders must be prepaid in U.S. funds; Visa, MC, Discover and AmEx accepted.

**EDITORIAL.** Send correspondence to Editors, *Radio Control Car Action*, 100 East Ridge, Ridgefield, CT 06877-4606 USA. We welcome all editorial submissions, but assume no responsibility for the loss or damage of unsolicited material. To authors, photographers and people featured in this magazine: all materials published in *Radio Control Car Action* become the exclusive property of Air Age Inc., unless prior arrangement is made in writing with the Publisher.

**ADVERTISING.** Send advertising materials to Advertising Department, *Radio Control Car Action*, Air Age Inc., 100 East Ridge, Ridgefield, CT 06877-4606 USA; phone (203) 431-9000; fax (203) 431-3000.

**CHANGE OF ADDRESS.** To make sure you don't miss any issues, send your new address to *Radio Control Car Action*, P.O. Box 427, Mount Morris, IL 61054-9853, six weeks before you move. Please include the address label from a recent issue, or print the information exactly as shown on the label. The Post Office will not forward copies unless you provide extra postage.

**POSTMASTER.** Please send Form 3579 to *Radio Control Car Action*, P.O. Box 427, Mount Morris, IL 61054.





# Chris's BACK LOT

The opinions expressed on this page do not necessarily represent the opinions of the entire *Car Action* staff. Any resemblance to reality is purely coincidental. Send your correspondence, hate mail, love letters, photographs—anything you like—to Chris's Back Lot, c/o R/C Car Action, 100 East Ridge, Ridgefield, CT 06877-4606. My email address is: [chrisc@airage.com](mailto:chrisc@airage.com).

BY CHRIS CHIANELLI

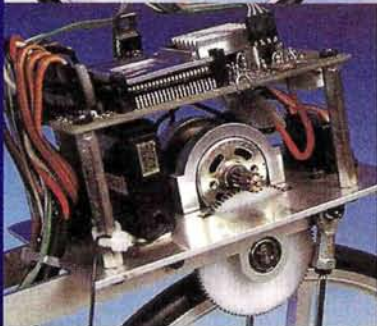
## From the other side of the RC World

**E**very once in a while, it's a good idea for us American hobbyists to take a step back and observe what's on the other side of the RC world. Here's just a small sample of modeler creativity from Japan. I show you these only to spark your inventive spirit—to create something. Don't email me with, "Chris! Totally cool; where can I buy one?" You can't, so don't ask.

No, this isn't the wimpiest BattleBot you've ever seen, it's master designer Mr. Taya's RC bicyclist. It features self-righting gyroscopic technology coupled to a 16-bit microprocessor. Top speed is 0.6mph.



Above: front "shopping basket" contains a JR giant-scale servo for steering control.



Left: power is supplied by a 380-motor directly driving the rear wheel via a friction roller. The dummy chain serves to drive only the cyclist's feet.



Track maintenance time! This creation is Mr. Mutoh's 1/15-scale Mitsubishi Rega330B hydraulic shovel.

Right: the triple-joint shovel arm has individually controlled hydraulics for optimum shoveling position control. Below right: automotive-type twin-gear oil pump supplies true hydraulic pressure. A 540-size motor and a 7.2V pack power the oil pump. Sound familiar?

